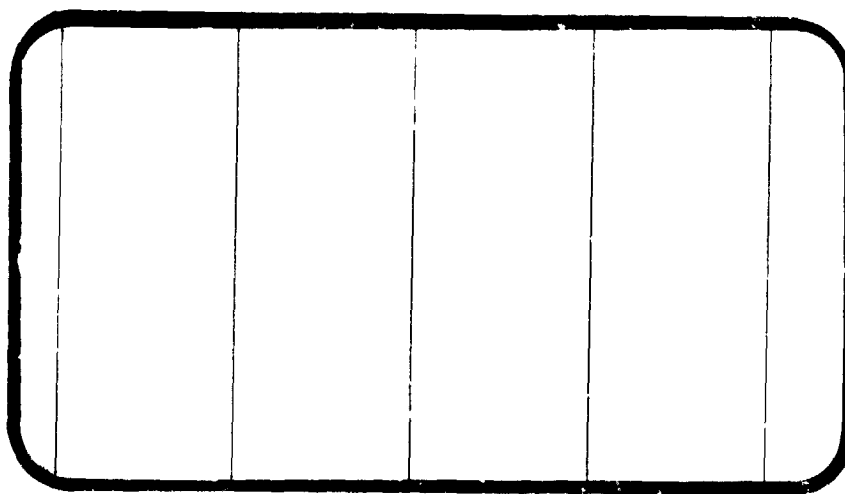




# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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(NASA-CF-13412) INVESTIGATIONS ON AN  
1:030-SCALE SPACE SHUTTLE VEHICLE  
CONFIGURATION 147/P ORBIT - MODEL IN THE  
AMES RESEARCH CENTER UTILITY (CHRYSLER  
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## SPACE SHUTTLE

## AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANAGEMENT services

SPACE DIVISION



CHRYSLER  
CORPORATION

July, 1974

DMS-DR-2185  
NASA-CR-134,120

INVESTIGATIONS ON AN 0.030-SCALE  
SPACE SHUTTLE VEHICLE CONFIGURATION 140A/B ORBITER  
MODEL IN THE AMES RESEARCH CENTER UNITARY PLAN  
8- BY 7-FOOT SUPERSONIC WIND TUNNEL (0A53C)

By

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Prepared under NASA Contract Number NAS9-13247

By

Data Management Services  
Chrysler Corporation Space Division  
New Orleans, La. 70189

for

Engineering Analysis Division  
Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas



WIND TUNNEL TEST SPECIFICS:

Test Number: ARC 87-747  
NASA Series Number: OA53C  
Model Number: 47-0  
Test Dates: 28 November through 6 December 1973  
Occupancy Hours: 159

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INVESTIGATIONS ON AN 0.030-SCALE  
SPACE SHUTTLE VEHICLE CONFIGURATION 140A/B ORBITER  
MODEL IN THE AMES RESEARCH CENTER UNITARY PLAN  
8- BY 7-FOOT SUPERSONIC WIND TUNNEL (OA53C)  
By M. E. Nichols, Rockwell International Space Division

ABSTRACT

This report documents data obtained in a wind tunnel test of an 0.030-scale Space Shuttle Vehicle Orbiter Configuration 140A/B model in the Ames Research Center Unitary Plan Wind Tunnel 8- by 7-foot supersonic section. The test was conducted between 28 November and 6 December 1973, in 159 test hours.

This part of test series OA53 was conducted at Mach numbers of 2.5, 3.0 and 3.5, and at Reynolds numbers range from  $0.75 \times 10^6/\text{ft.}$  to  $4.00 \times 10^6/\text{ft.}$

The objective of test series OA53 was to establish and verify longitudinal and lateral-directional aerodynamic performance, stability, and control characteristics for the Configuration 140 A/B SSV Orbiter. Reynolds number studies were performed on certain nominal control-setting configurations, and examinations were made of the incremental effects of an alternate wing leading-edge configuration and of a sealed elevon-split construction.

Six-component force and moment data, base and cavity pressures, body-flap, elevon, speedbrake, and rudder hinge moments, and vertical tail forces and moments were measured for the Orbiter.

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## SCHEDULE OF COEFFICIENTS PLOTTED:

- (A) CL, CD, CDF, CA, CAF, CAB, CN, CLMFWD, CLMAFT, L/D, XCP/L, versus ALPHA  
CN versus CLMFWD  
CL versus CD
- (B) CL, CD, CDF, CA, CAF, CAB, CN, CLMFWD, CLMAFT, L/D, XCP/L versus ALPHA  
CN versus CLMFWD  
CL versus CD  
DCL, DCD, DCA, DCAF, DCAB, DCN, DCMFWD, DCMAFT versus ALPHA
- (C) CY, CYN, CBL versus BETA
- (D) CYBETA, CYNBET, CBLBET versus ALPHA



# INDEX OF DATA FIGURES (Concluded)

- (E) CY, CYN, CBL versus ALPHA
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- (I) CHET, CHEI, CHEO versus ALPHA
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- (K) CHR, CHUL, CHLL, CHUR, CHLR versus BETA
- (L) CHSB, CHUL, CHLL, CHUR, CHLR, DCHDSB versus ALPHA
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- (N) CYV, CYNV versus RUDDER
- (O) CYV, CYNV versus BETA
- (P) CHET, CHEI, CHEO versus RUDDER
- (Q) CHBF versus RUDDER
- (R) CHR, CHUL, CHLL, CHUR, CHLR versus AILRON
- (S) CHBF versus AILRON
- (T) CHET, CHEI, CHEO versus ELEV-L
- (U) CHEI, CHEO versus ALPHA
- (V) CHUL, CHLL, CHUR, CHLR versus BETA
- (W) DCY/DA, DCYNDA, DCBLDA, DCLMDA versus ALPHA

# NOMENCLATURE

Symbol	SADSAC Symbol	Definition
Body Axis		
$C_N$	CN	normal-force coefficient
$C_A$	CA	axial-force coefficient
$C_{A_F}$	CAF	forebody axial-force coefficient
$C_m$	CLM	pitching-moment coefficient
$C_Y$	CY	side-force coefficient
$C_n$	CYN	yawing-moment coefficient
$C_l$	CBL	rolling-moment coefficient
Stability Axis (Coefficients utilizing $C_A$ )		
$C_L$	CL	lift coefficient
$C_D$	CD	drag coefficient
$C_m$	CLM	pitching-moment coefficient
$C_{n_s}$	CLN	stability yawing-moment coefficient
$C_{l_s}$	CSL	stability rolling-moment coefficient
Stability Axis (Coefficients utilizing $C_{A_F}$ )		
$C_{L_F}$	CLF	forebody lift coefficient
$C_{D_F}$	CDF	forebody drag coefficient

$C_{m_F}$	CMF	forebody pitching-moment coefficient
L/D	L/D	lift-to-drag ratio
$L_F/D_F$	LF/DF	forebody lift-to-drag ratio
$X_{CP}/L_B$	XCP/L	longitudinal center of pressure location of total vehicle, percent reference body length
$\alpha$	ALPHA	angle of attack, degrees
$\beta$	BETA	angle of sideslip, degrees
M	MACH	free-stream Mach number
$P_0$	P0	free-stream static pressure, psia
$P_T$	PT	total pressure, psia
q	Q	free-stream dynamic pressure (psf)
Re/ft	RN/L	unit Reynolds number, per foot
TTAV	TTAV	average total temperature, deg. R

#### Vertical Tail Data

##### Body Axis

$C_{N_V}$	CNV	vertical normal-force coefficient
$C_{A_V}$	CAV	vertical axial-force coefficient
$C_{m_V}$	CMV	vertical pitching-moment coefficient
$C_{Y_V}$	CYV	vertical side-force coefficient
$C_{n_V}$	CYNV	vertical yawing-moment coefficient
$C_{l_V}$	CLV	vertical rolling-moment coefficient

# Pressure Coefficients and Pressure Corrections

$C_{P_{B_i}}$	CPBI	pressure coefficient for individual base pressures
$C_{P_B}$	CPB	average base pressure coefficient
$C_{P_{SC_j}}$	CPSCJ	pressure coefficient for individual sting-cavity pressures
$C_{P_{SC}}$	CPSC	average sting-cavity pressure coefficient
$C_{A_B}$	CAB	base axial-force coefficient
$C_{A_{SC}}$	CASC	sting-cavity axial-force coefficient

## Hinge Moments

$C_{H_R}$	CHR	rudder hinge-moment coefficient
$C_{H_{E_I}}$	CHEI	inboard elevon hinge-moment coefficient
$C_{H_{E_O}}$	CHEO	outboard elevon hinge-moment coefficient
$C_{H_{E_T}}$	CHET	total elevon hinge-moment coefficient
$C_{H_{UL}}$	CHUL	speedbrake hinge-moment coefficient (upper left)
$C_{H_{LL}}$	CHLL	speedbrake hinge-moment coefficient (lower left)
$C_{H_{UR}}$	CHUR	speedbrake hinge-moment coefficient (upper right)
$C_{H_{LR}}$	CHLR	speedbrake hinge-moment coefficient (lower right)

$C_{H_{BF}}$	CHBF	bodyflap hinge-moment coefficient
$C_{H_{SB}}$	CHSB	total speedbrake hinge-moment coefficient
$C_{P_{V_1}}$	CPV1	pressure coefficient for $P_{V_1}$
$C_{P_{V_2}}$	CPV2	pressure coefficient for $P_{V_2}$
$C_{P_{V_3}}$	CPV3	pressure coefficient for $P_{V_3}$
$C_{P_{V_4}}$	CPV4	pressure coefficient for $P_{V_4}$
$C_{A_{VB}}$	CAVB	vertical tail base axial-force coefficient
$\frac{x_{CPV}}{l_B}$	XCPV/L	longitudinal center-of-pressure location of vertical tail forces
$\frac{z_{CPV}}{l_B}$	ZCPV/L	vertical center-of-pressure location of vertical tail forces
$P_{V_1}, P_{V_2}, P_{V_3}, P_{V_4}$		pressure on vertical tail at stations 1, 2, 3, 4 respectively, psia

NOMENCLATURE (Continued)  
ADDITIONS TO NOMENCLATURE

$C_{mFWD}$	CLMFWD	pitching moment coefficient (FWD C.G.)
$C_{mAFT}$	CLMAFT	pitching moment coefficient (AFT C.G.)
$\delta_{eL}$	ELEV-L	left elevon deflection
$\Delta C_L$	DCL	incremental lift coefficient
$\Delta C_D$	DCD	incremental drag coefficient
$\Delta C_A$	DCA	incremental axial force coefficient
$\Delta C_{AF}$	DCAF	incremental forebody axial force coefficient
$\Delta C_{AB}$	DCAB	incremental base axial force coefficient
$\Delta C_N$	DCN	incremental normal force coefficient
$\Delta C_{mFWD}$	DCMFWD	incremental pitching moment coefficient (FWD C.G.)
$\Delta C_{mAFT}$	DCMAFT	incremental pitching moment coefficient (AFT C.G.)
$\Delta C_y$	DCY	incremental side force coefficient
$\Delta C_n$	DCYN	incremental yawing moment coefficient
$\Delta C_\ell$	DCBL	incremental rolling moment coefficient
$C_{Y_{\delta_{SB}}}$	DCY/DS	side force coefficient derivative with respect to speed brake deflection. Algebraic difference of the side force coefficient of two runs divided by the algebraic difference of the speed brake angle of the runs; per degree.
$C_{n_{\delta_{SB}}}$	DCYNDS	yawing moment coefficient derivative with respect to speed brake deflection. Algebraic difference of the yawing moment coefficient of two runs divided by the algebraic difference of the speed brake angle of the runs; per degree

# NOMENCLATURE (Continued)

$C_{l\delta_{SB}}$	DCBLDS	rolling moment coefficient derivative with respect to speed brake deflection. Algebraic difference of the rolling moment coefficient of two runs divided by the algebraic difference of the speed brake angle of the runs; per degree.
$C_{m\delta_{SB}}$	DCLMDS	pitching moment coefficient derivative with respect to speed brake deflection. Algebraic difference of the pitching moment coefficient of two runs divided by the algebraic difference of the speed brake angle of the runs; per degree.
$C_{m\delta_a}$	DCLMDA	pitching moment coefficient derivative with respect to aileron deflection. Algebraic difference of the pitching moment coefficient of two runs divided by the algebraic difference of the total aileron deflection angle of the runs; per degree.
$C_{m\delta_r}$	DCLMDR	pitching moment coefficient derivative with respect to rudder deflection. Algebraic difference of the pitching moment coefficient of two runs divided by the algebraic difference of the total rudder deflection of the runs; per degree.
$C_{H_{SB\delta}}$	DCHDSB	speed brake hinge moment derivative with respect to speed brake deflection. Algebraic difference of the speed brake hinge moment coefficient of two runs divided by the algebraic difference of the speed brake deflection angle of the runs; per degree.
$\Delta\delta_a$	DA	algebraic difference of aileron deflection angle between two runs; degrees.
$\Delta\delta_e$	DE	algebraic difference of elevon deflection angle between two runs; degrees.
$\Delta\delta_r$	DR	algebraic difference of rudder deflection angle between two runs; degrees.
$\Delta\delta_{BF}$	DBF	algebraic difference of body flap deflection angle between two runs; degrees.
$\delta_a$	AILRON	aileron, total aileron deflection angle, degrees, (left aileron - right aileron)/2.

# NOMENCLATURE (Concluded)

$\delta_{BF}$	BDFLAP	body flap, surface deflection angle; degrees.
$\delta_e$	ELEVON	elevon, surface deflection angle; degrees.
$\delta_r$	RUDDER	rudder, surface deflection angle; degrees.
$\delta_{SR}$	SPDBRK	speedbrake, split rudder inclusive deflection angle between outer surfaces; degrees.



## CONFIGURATIONS INVESTIGATED

The subject of this test series was the Configuration 140A/B Space Shuttle Vehicle Orbiter. The 0.030-scale 47-0 model used was tested. An arrangement employing sealed gaps between elevon panels was used to determine gap incremental effects, and an alternate wing configuration having a modified leading edge and glove was investigated.

Various elevon, aileron, bodyflap, speedbrake, and rudder deflections were examined for control effectiveness and hinge-moment stresses.

The following nomenclature designated model components:

<u>Component</u>	<u>Description</u>
B <sub>26</sub>	140A/B fuselage (VL70-000140A, VL70-000145, VL70-000140B, VL70-000143A, VL70-000139)
C <sub>9</sub>	Basic 140A/B canopy (VL70-000140A, VL70-000143A)
E <sub>26</sub>	Basic 140A/B elevons (VL70-000200, VL70-006089, VL70-006092)
F <sub>9</sub>	140A/B bodyflap (VL70-000140B, VL70-000200)
M <sub>7</sub>	OMS/RCS pods for 140A/B Orbiter
N <sub>28</sub>	Basic OMS nozzles for 140A/B configuration
R <sub>5</sub>	Basic Orbiter rudder (VL70-000146A, VL70-000095)
V <sub>8</sub>	Basic Orbiter vertical tail (VL70-000146A)
W <sub>116</sub>	Basic 140A/B wing (VL70-000140B, VL70-000200)
W <sub>121</sub>	Alternate leading-edge wing configuration (VL70-000219, VL70-000200, VL70-006089, VL70-006092)

Reference dimensions and constants for Orbiter data were:

Symbol	Definition	Value
$A_B$	(see below for base areas) $\sum_{i=1}^6 A_{B_i}$	0.298472 ft <sup>2</sup>
$A_{SC}$	Sting-cavity area	0.07670 ft <sup>2</sup>
$b_w$	Reference wing span	28.1004 inches
$\bar{c}_w$	Reference MAC	14.244 inches
$l_B$	Reference body length (IML)	38.709 inches
$S_w$	Reference wing area	2.4210 ft <sup>2</sup>
$x_{CG}$	Longitudinal length, nose to moment reference center	25.251 inches
$y_{CG}$	Lateral length, plane of symmetry to moment reference center	0.000 inch
$z_{CG}$	Vertical length, FRP to moment reference center	-0.750 inch
$\bar{c}_E$	Elevon chord	2.7210 inches
$\bar{c}_R$	Rudder chord	2.2110 inches
$\bar{c}_{SB}$	Speedbrake chord	2.2110 inches
$\bar{c}_{BF}$	Bodyflap chord	2.541 inches
$S_E$	Reference elevon area	0.18900 ft <sup>2</sup>
$S_R$	Reference rudder area	0.090135 ft <sup>2</sup>
$S_{SB}$	Reference speedbrake area	0.090135 ft <sup>2</sup>
$S_{BF}$	Reference bodyflap area	0.12834 ft <sup>2</sup>

Orbiter Base Areas (ft<sup>2</sup>)

$A_{B_1}$  0.050764

$A_{B_2}$  (OMS) 0.087153

$A_{B_3}$  0.033333

$A_{B_4}$  0.060069

$A_{B_5}$  0.028472

$A_{B_6}$  0.038681

## TEST FACILITY DESCRIPTION

The Ames Research Center Unitary Plan Wind Tunnel 8- by 7-foot supersonic test circuit is a closed-return, variable-density, air-medium facility with a 16-foot-long test section. The throat has flexible sidewalls for control of tunnel Mach number. The 8- by 7-foot tunnel uses the same motors and compressors as the 9- by 7-foot circuit.

The tunnel is capable of attaining Mach numbers from 2.45 to 3.50 at Reynolds numbers from below  $1.0 \times 10^6/\text{ft}$  to approximately  $5.0 \times 10^6/\text{ft}$ .

Models are supported, in general, from stings mounted to a body-of-revolution on a floor-to-ceiling strut system. Internal strain-gauge balances are used for force and moment data, and pressure instrumentation is provided.

Schlieren and shadowgraph equipment is available, as well as additional force, moment, and stress monitoring instrumentation for specific models.

## DATA REDUCTION

### A. Data Reduction for the Orbiter

Standard ARC methods were used to compute coefficient data.

One set of body- and two sets of stability-axis data are used. The first stability-axis data set has the axial-force coefficient corrected to the base pressure, whereas the second stability-axis data set has the axial-force coefficient corrected to free-stream pressure.

The following outputs are some of those required for data presentation.

Pressure coefficient was computed for each pressure ( $P_{B_i}$ ) as follows:

$$C_{P_{B_i}} = \frac{P_{B_i} - P_o}{q}$$

where

$P_{B_i}$  = pressure at base orifice i

$P_o$  = free-stream static pressure

$q$  = free-stream dynamic pressure

Pressure coefficient was computed for each sting-cavity pressure ( $P_{SC_j}$ ) as follows:

$$C_{P_{SC_j}} = \frac{P_{SC_j} - P_o}{q}$$

where

$P_{SC_j}$  = pressure at sting-cavity orifice j

Average (area-weighted) base pressure coefficient was computed as follows:

$$C_{P_B} = \frac{P_B - P_o}{q}$$

where

$$P_B = \frac{\sum_{i=1}^6 P_{B_i} A_{B_i}}{\sum_{i=1}^6 A_{B_i}}$$

and

6 = number of base pressures

$P_{B_i}$  = pressure at base orifice i

$A_{B_i}$  = area assigned to base orifice i

Average (numerically averaged) sting-cavity pressure coefficient was computed as follows:

$$C_{P_{SC}} = \frac{P_{SC} - P_o}{q}$$

where

$$P_{SC} = \frac{\sum_{j=1}^2 P_{SC_j}}{2}$$

and

2 = number of sting-cavity pressures

$P_{SC_j}$  = pressure at sting-cavity orifice j

Base axial-force coefficient was computed as follows:

$$C_{A_B} = \frac{-[C_{P_B} (A_B) + C_{P_{SC}} (A_{SC})]}{S_w}$$

where

$A_B$  = area of base (total)

$A_{SC}$  = area of sting-cavity

$S_w$  = wing reference area

Sting-cavity axial-force coefficient was computed as follows:

$$C_{A_{SC}} = \frac{-(P_{SC} - P_B) A_{SC}}{q S_w}$$

Axial-force coefficient adjusted to the average (area-weighted) base pressure was computed as follows:

$$C_A = C_{A_U} - C_{A_{SC}}$$

where

$C_{A_U}$  = axial-force coefficient unadjusted for base or sting-cavity pressures

Axial-force coefficient corrected to freestream static pressure (forebody axial-force coefficient) was computed as follows:

$$C_{A_F} = C_{A_U} - C_{A_B}$$

Center-of-pressure location, in percent of reference body length was computed as follows:

$$\frac{x_{CP}}{l_B} = \frac{x_{CG} - \frac{C_m \bar{c}_w}{C_N}}{l_B}$$

where

$x_{CG}$  = center-of-gravity location aft of model nose

$l_B$  = reference body length

Lift-to-drag ratios, based on each of the two sets of stability axis data were computed as follows:

$$\frac{L}{D} = \frac{C_L}{C_D}, \text{ based on } C_A$$

$$\frac{L_F}{D_F} = \frac{C_{L_F}}{C_{D_F}}, \text{ based on } C_{A_F}$$

Rudder hinge-moment coefficient was computed as follows.

$$C_{H_R} = \frac{HM_R}{q S_R c_R}$$

where

$$HM_R = HM_{SB_{UL}} + HM_{SB_{LL}} - HM_{SB_{UR}} - HM_{SB_{LR}}$$

Inboard-elevon hinge-moment coefficient was computed as follows:

$$C_{H_{E_I}} = \frac{HM_{E_I}}{q S_E c_E}$$

Outboard-elevon hinge-moment coefficient was computed as follows:

$$C_{H_{E_O}} = \frac{HM_{E_O}}{q S_E c_E}$$

Total elevon hinge-moment coefficient was computed as follows:

$$C_{H_{E_T}} = C_{H_{E_I}} + C_{H_{E_O}}$$

Speedbrake hinge-moment coefficient was computed as follows:

$$C_{H_{SB_k}} = \frac{HM_{SB_k}}{q S_{SB} c_{SB}}$$

where k = two upper and two lower speedbrake panels

Bodyflap hinge-moment coefficient was computed as follows:

$$C_{H_{BF}} = \frac{HM_{BF}}{q S_{BF} c_{BF}}$$



## B. Data Reduction for Vertical Tail Instrumentation

Standard ARC methods were used to compute six-component data.

The data were reduced to coefficient form using the wing area ( $S_w$ ), wing chord ( $\bar{c}_w$ ), and wing span ( $b_w$ ). Moments were determined about the balance center, and then transferred to the model C.G.

Pressure coefficients were computed for vertical base pressures,  $P_{V1}$  and  $P_{V2}$  as follows:

$$C_{P_{V1,2}} = \frac{P_{V1,2} - P_o}{q}$$

Pressure coefficients were computed for vertical cavity pressures,  $P_{V3}$  and  $P_{V4}$  as follows:

$$C_{P_{V3,4}} = \frac{P_{V3,4} - P_o}{q}$$

Vertical tail base axial-force correction was computed as follows:

$$C_{A_{VB}} = \frac{-[(C_{P_{V2}} - C_{P_{V3}}) A_{V2} + C_{P_{V1}} A_{V1}]}{S_w}$$

Vertical tail axial-force coefficient corrected to freestream pressure was computed as follows:

$$C_{A_V} = C_{A_{VU}} - C_{A_{VB}}$$

where

$C_{A_{VU}}$  = vertical tail axial-force coefficient  
unadjusted for base pressures

Center-of-pressure locations on the vertical tail were computed as follows:

$$x_{CP_V} = x_{CG} - \frac{C_{n_{VBODY}} b_w}{C_{Y_{VBODY}}}$$

(where "BODY" means "body-axis")

$$z_{CP_V} = z_{CG} + \frac{C_{l_{VBODY}} b_w}{C_{Y_{VBODY}}}$$

Pressure coefficient for each extra "monitoring" pressure ( $P_{X_i}$ ) was computed as follows:

$$C_{P_{X_i}} = \frac{P_{X_i} - P_o}{q}$$

Reference dimensions and constants for the vertical tail were:

<u>Symbol</u>	<u>Comments</u>	<u>Value</u>
$A_{V_1}$	See figures	0.00625 ft <sup>2</sup>
$A_{V_2}$	See figures	0.01326 ft <sup>2</sup>
$S_w$	Given in previous section	
$b_w$	Given in previous section	
$l_B$	Given in previous section	
$x_{CG}$	Given in previous section	
$z_{CG}$	Given in previous section	

## REFERENCES

1. Rockwell International Space Division Technical Report No. SD73-SH-0276: "Pretest Information for Tests of the 0.030-Scale Space Shuttle Orbiter Force Model 47-U in the NASA/Ames 11- by 11-Foot, 9- by 7-Foot and 8- by 7-Foot Unitary Plan Wind Tunnels (OA53A,B,C)", by M. D. Milam, E. Chee, and M. E. Nichols, 19 October 1973.
2. Rockwell International Space Division Internal Letter No. SAS/WT0/73-205: "Model Design Requirements for the 0.030-Scale Pressure/Loads Model 47-OTS", 20 June 1973.
3. NASA-CR-134, 114 (DMS-DR-2128, Vol. I); "Investigations on an 0.030-Scale Space Shuttle Vehicle Configuration 140A/B Orbiter Model in the Ames Research Center 11-by 11-foot Transonic Wind Tunnel (OA53A)," by M. D. Milam, E. Chee, and M. E. Nichols, July 1974.
4. NASA-CR-134, 115 (DMS-DR-2128, Vol. II), "Investigations on an 0.030-Scale Space Shuttle Vehicle Configuration 140A/B Orbiter Model in the Ames Research Center 11-by 11-foot Transonic Wind Tunnel (OA53A)," by M. D. Milam, E. Chee, and M. E. Nichols, July 1974.
5. NASA-CR-134, 119 (DMS-DR-2178); "Investigations on an 0.030-Scale Space Shuttle Vehicle Configuration 140A/B Orbiter Model in the Ames Research Center 9-by 7-foot Supersonic Wind Tunnel (OA53B)," by M. D. Milam, E. Chee, and M. E. Nichols, July 1974.

TABLE I.

TEST : OA53C		DATE : 11-28-73	
TEST CONDITIONS			
MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
2.5	0.75	1.03	120
2.5	1.75	2.44	120
2.5	4.00	5.46	120
			120
3.0	0.75	0.90	120
3.0	1.75	2.10	120
3.0	3.25	3.90	120
			120
3.5	0.75	0.77	120
3.5	1.75	1.79	120
3.5	2.50	2.56	120

BALANCE UTILIZED:	2.5" Mk XX		
	CAPACITY	ACCURACY	COEFFICIENT TOLERANCE
NF	3000 lb	_____	_____
NA	3000 lb	_____	_____
SF	1500 lb	_____	_____
SA	1500 lb	_____	_____
R	4000 in-lb	_____	_____
X	600 lb	_____	_____

COMMENTS

TABLE II

[illegible]

TABLE II - Continued

TEST: 87-747 PA-53C										DATE 6 DEC 1973												
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES					RWL		MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)									
				$\alpha$	$\beta$	$\delta_{10}$	$\delta_{12}$	$\delta_{14}$	$\delta_{16}$	$\delta_{18}$												
REL019		BCM FW <sub>1</sub> V		B	O	-20	-11.7	5.5	O	NOPI			327	340	343							
20						-20				HI			328	341	342							
21						0.20				NOPI			383	384	385							
22						0.40							513	512	511							
23						-40							523	524	525							
24						O		25					467	471	475							
25				O	B								468	472	476							
26				10									469	473	477							
27				20									470	474	478							
28 BCM FW <sub>2</sub> V				B	O			55					414	420	421							
29 BCM FW <sub>1</sub> V				O	B	-11.7		-10					449	452	455							
30				10									450	453	456							
31				20									451	454	457							
32				O				46	-20				491	494	497							
33				10									492	495	498							
34				20									493	496	499							
35				O				25	-10				458	461	464							
36				10				25	-10				459	462	465							
				7	13	19	25	31	37	43	49	55	61	67	73	79	85	91	97			
		COEFFICIENTS																				
		SCHEDULES																				
		TEST RUN NUMBER																				

TABLE II - Concluded

TEST: 87-747 0153C										DATE 6 DEC 1973											
DATA SET RUN NUMBER COLLATION SUMMARY																					
DATA SET IDENTIFIER	CONFIGURATION	SCHED.		PARAMETERS/VALUES				RM/L	MARCH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)												
		$\alpha$	$\beta$	EXR	SSE	SSE	SR		2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	7.6	
RELO37	RCN1FW,V	20	B	C	-11.7	2.5	-10	14.17	460	463	466	469	472	475	478	481	484	487	489		
38		B	C			8.5	C														
39		O	B																		
40		10																			
41		20																			
42		B	O	15	5	5.5															
43				15	-15																
44				5	25																
45				15	-25																
46		O	B	O		8.5	-10		431	434	437	438	439	440	443	446	447	448	453		
47		10							432	435	438	439	440	443	446	447	448	453	531		
48		20							433	436	439	440	443	446	447	448	453	531			
49	SEN1 ELEM	B	O	15	16.3	5.5	O		520	521	522	523	524	527	528	529	530	531			
50	SEN1 ELEM	B	O	C	16.3	5.5	O		517	518	519	520	521	522	523	524	527	528			
51		O	B	O	-11.7	2.5	-25		440	443	446	447	448	449	450	453	454	455			
52		10							441	444	447	448	449	450	453	454	455	456			
53		20							442	445	448	449	450	453	454	455	456	457			
54		B	O	-5.3	-11.7	5.5	O		529	530	531	532	533	534	535	536	537	538			
		7	13	19	25	31	37	43	49	55	61	67	73	76							
		COEFFICIENTS										IDVAR (1) 10, 45, 12 NDV									
		$\alpha$ OR $\beta$																			
		SCHEDULES																			

TABLE III. - MODEL DIMENSIONAL DATA

MODEL COMPONENT BODY - B26

GENERAL DESCRIPTION Orbiter fuselage configuration 140A/B

NOTE: B26 identical to B24 except underside of fuselage refaired to accept W116.

MODEL SCALE: 0.030

DRAWING NUMBER VI70-000139, VI70-000140A, VI70-000140B, VI70-000141A, VI70-000145

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (Body Fwd Sta $X_0=235$ ) - In.	<u>1293.3</u>	<u>38.799 (OML)</u>
Max Width (@ $X_0 = 1520$ ) - In.	<u>262.0</u>	<u>7.860</u>
Max Depth (@ $X_0 = 1464$ ) - In.	<u>250.0</u>	<u>7.500</u>
Fineness Ratio	<u>0.26357</u>	<u>0.26357</u>
Area - Ft <sup>2</sup>	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>340.88462</u>	<u>0.30679</u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>



TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : CANOPY - C<sub>9</sub>

GENERAL DESCRIPTION : Configuration 140 A/B orbiter fuselage canopy

\_\_\_\_\_

\_\_\_\_\_

MODEL SCALE: 0.030

DRAWING NUMBER : VL70-000140A, VL70-000143A

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ( $X_0 = 434.643$ to $578$ )-In.	<u>143.357</u>	<u>4.30071</u>
Max Width (@ $X_0 = 513.127$ )	<u>152.412</u>	<u>4.57236</u>
Max Depth (@ $X_0 = 485.0$ )	<u>25.000</u>	<u>0.75000</u>
Fineness Ratio	_____	_____
Area	_____	_____
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : BODY FLAP - F<sub>9</sub>

GENERAL DESCRIPTION : Configuration 140 A/B body flap

MODEL SCALE: 0.030

DRAWING NUMBER : VL70-000140B, VL70-000200

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length - In.	<u>84.7</u>	<u>2.541</u>
Max Width - In.	<u>262.308</u>	<u>7.86924</u>
Max Depth - In.	<u>24.000</u>	<u>0.69000</u>
Fineness Ratio	<u></u>	<u></u>
Area - Ft <sup>2</sup>	<u></u>	<u></u>
Max. Cross-Sectional	<u></u>	<u></u>
Planform	<u>158.85350</u>	<u>0.14297</u>
Wetted	<u></u>	<u></u>
Base	<u>41.89642</u>	<u>0.03771</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : OMS PODS - M<sub>7</sub>

GENERAL DESCRIPTION : Configuration 140 A/B OMS Pods

MODEL SCALE: 0.030

DRAWING NUMBER : VL70-000140A, VL70-000145

DIMENSIONS	FULL SCALE	MODEL SCALE
Length (OMS Fwd Sta. $X_0 = 1233.0$ (In.))	<u>327.000</u>	<u>9.810</u>
Max Width (@ $X_0 = 1450.0$ ) - In.	<u>94.5</u>	<u>2.8350</u>
Max Depth (@ $X_0 = 1493.0$ ) - In.	<u>109.000</u>	<u>3.270</u>
Fineness Ratio	<u>                    </u>	<u>                    </u>
Area	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>                    </u>	<u>                    </u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: NOZZLES - N<sub>26</sub>

GENERAL DESCRIPTION: Configuration 140A/B OMS Nozzles

MODEL SCALE: 0.030

DRAWING NO.: VL70-000140A

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Gimbal Origin		
Fuselage Sta. - In.		
X	<u>1518</u>	<u>-45.54</u>
Y	<u>+ 88.0</u>	<u>2.64</u>
Z	<u>492.0</u>	<u>14.76</u>
Null Position		
Pitch	<u>15°49'</u>	<u>15°49'</u>
Yaw	<u>12°17'</u>	<u>12°17'</u>
Gimbal Range		
Pitch		
Outboard	<u>± 8°</u>	<u>± 8°</u>
Yaw		
Outboard	<u>13°17'</u>	<u>13°17'</u>
Inboard	<u>2°30'</u>	<u>2°30'</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V<sub>8</sub>GENERAL DESCRIPTION: Configuration 140A/B vertical tail.NOTE: Similar to V5 with radius on T.E. upper corner and L.E. lower corner where vertical meets fuselage.

MODEL SCALE: 0.030

DRAWING NUMBER: VL70-000140A, VL70-000146A

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
TOTAL DATA		
Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.253</u>	<u>0.37193</u>
Span (Theo) - In.	<u>315.720</u>	<u>9.40160</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.40399</u>	<u>0.40399</u>
Sweep-Back Angles - Degrees		
Leading Edge	<u>45.00</u>	<u>45.00</u>
Trailing Edge	<u>25.947</u>	<u>25.947</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.500</u>	<u>8.05500</u>
Tip (Theo) WP	<u>108.470</u>	<u>3.25410</u>
MAC	<u>199.80750</u>	<u>5.99423</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>43.9050</u>
W.P. of .25 MAC	<u>635.522</u>	<u>19.06566</u>
B.L. of .25 MAC		
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.00</u>	<u>10.00</u>
Trailing Wedge Angle - Deg.	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius (Min.) - In.	<u>2.00</u>	<u>0.060</u>
Void Area	<u>13.17</u>	<u>0.01185</u>
Blanketed Area	<u>0.0</u>	<u>0.0</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RUDDER - R<sub>5</sub>

GENERAL DESCRIPTION: 140 A/B configuration per Rockwell Lines  
VL70-000095.

MODEL SCALE: 0.030

DRAWING NUMBER: VL70-000095, VL70-001111

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>106.38</u>	<u>0.00574</u>
Span (equivalent) - In.	<u>201.0</u>	<u>6.0300</u>
Inb'd equivalent chord - In.	<u>91.585</u>	<u>2.74755</u>
Outb'd equivalent chord - In.	<u>50.833</u>	<u>1.52499</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.83</u>	<u>34.83</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (Normal to hinge line) Ft <sup>3</sup>	<u>526.13</u>	<u>0.01420</u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: WING-W<sub>116</sub>GENERAL DESCRIPTION: Configuration 140A/B basic wingNOTE: Identical to W114 except airfoil thickness. Dihedral angle is  
given for trailing edge of wing.MODEL SCALE: 0.030

TEST NO.	FIG. NO.	VL70-000140B VL70-000000
DIMENSIONS:	FULL-SCALE	MODEL SCALE
<u>TOTAL DATA</u>		
Area (Theo.) - Ft <sup>2</sup>		
Planform	2690.00	2.4210
Span (Theo.)-In.	936.815	28.10045
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	0.500	0.500
Aerodynamic Twist, degrees	+3.00	+3.000
Sweep Back Angles, degrees		
Leading Edge	45.00	45.00
Trailing Edge	- 10.056	- 10.056
0.25 Element Line	35.200	35.200
Chords:		
Root (Theo) B.P.O.O.	689.2420	20.67729
Tip, (Theo) B.P.	137.455	4.13546
MAC	474.8117	14.24435
Fus. Sta. of .25 MAC	1126.741	33.60163
W.P. of .25 MAC	291.00	8.73000
B.L. of .25 MAC	187.33491	4.62005
<u>EXPOSED DATA</u>		
Area (Theo) - Ft <sup>2</sup>	1812.2205	1.63010
Span, (Theo) - In. BP108	736.6816	22.10045
Aspect Ratio	2.058	2.058
Taper Ratio	0.2451	0.2451
Chords:		
Root BP108	570.6230	17.11869
Tip 1.00 $\frac{b}{2}$	137.4512	4.13554
MAC	354.2376	10.62713
Fus. Sta. of .25 MAC	1164.237	34.90711
W.P. of .25 MAC	292.00	8.73000
B.L. of .25 MAC	230.67786	7.10034
Airfoil Section (Rockwell Mod NASA)		
XXXX-64		
Root $\frac{b}{2}$	0.11	0.113
Tip $\frac{b}{2}$	0.12	0.12
Data for (1) of (2) Sides		
Leading Edge Cuff		
Planform Area Ft <sup>2</sup>	79.13389	0.73650
Leading Edge Intersects Fus M. L. @ Sta	50.00	1.50000
Leading Edge Intersects Wing @ Sta	1000.5	30.12000

TABLE III. - MODEL DIMENSIONAL DATA - Continued

MODEL COMPONENT: ELEVON - E<sub>26</sub>

GENERAL DESCRIPTION: Configuration 140A/B Orbiter Elevons

Data for one side.

MODEL SCALE: 0.030 MODEL DRAWING SS-A00148, RELEASE 6

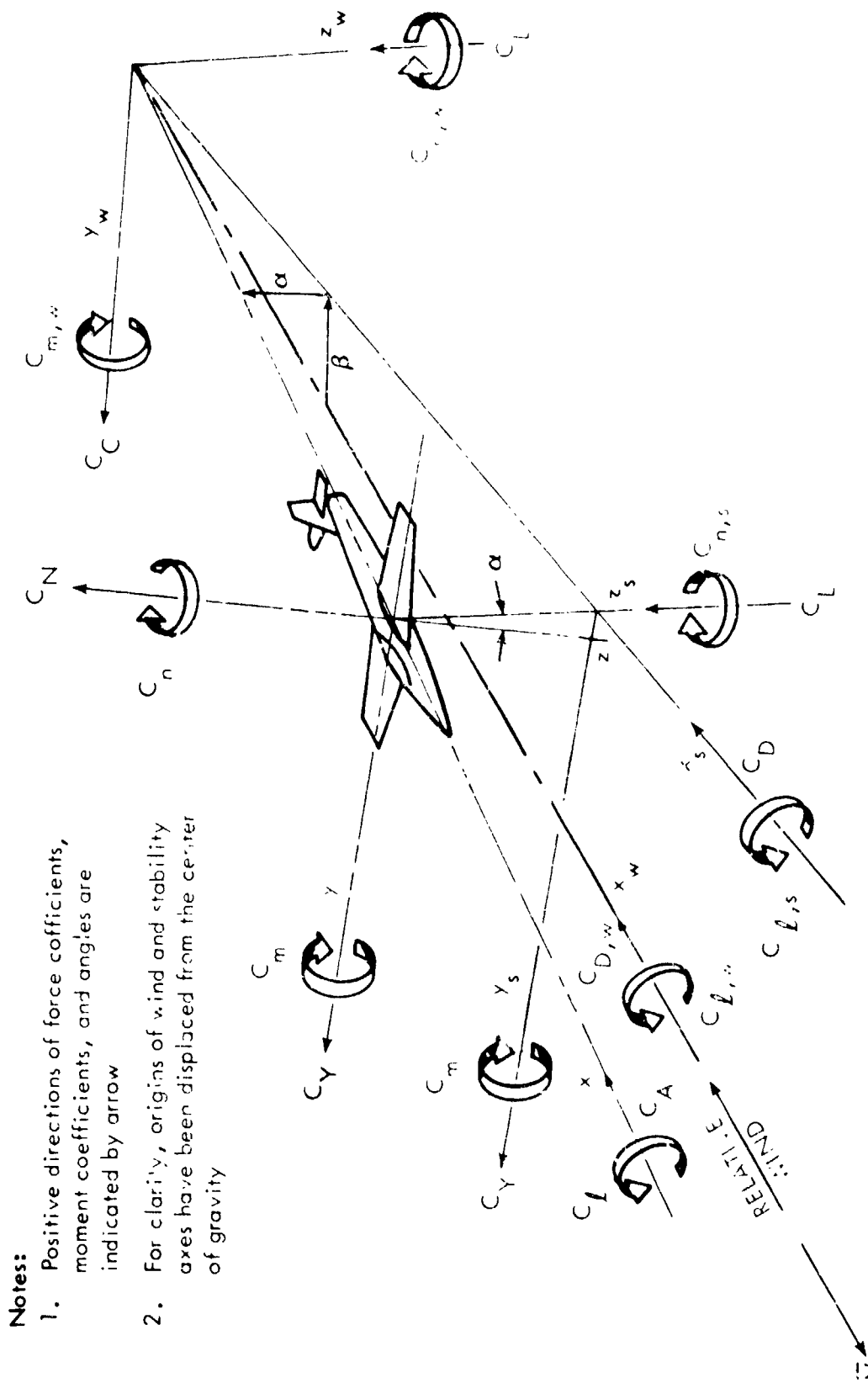
DRAWING NUMBER: VL70-000200, VL70-006089, VL70-006092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>210.0</u>	<u>0.1890</u>
Span (equivalent) - In.	<u>349.2</u>	<u>10.476</u>
Inb'd equivalent chord - In.	<u>118.004</u>	<u>3.540</u>
Outb'd equivalent chord - In.	<u>55.192</u>	<u>1.656</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line) Ft <sup>3</sup>	<u>1587.25</u>	<u>0.005670</u>
Mean Aerodynamic Chord - In.	<u>90.70</u>	<u>2.721</u>



TABLE III. - MODEL DIMENSIONAL DATA - Concluded.

MODEL COMPONENT: <u>WING-W<sub>121</sub></u>		
GENERAL DESCRIPTION: <u>Identical to W<sub>121</sub> except for modified leading edge as shown on Figure 2c.</u>		
MODEL SCALE: <u>0.030</u>		
TEST NO.	DWG. NO. <u>VL70-000200, -006089,</u> <u>-000319 -006092</u>	
DIMENSIONS:	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area (Theo.) Ft <sup>2</sup>		
Planform	<u>2690.0</u>	<u>2.421</u>
Span (Theo) In.	<u>736.682</u>	<u>28.100</u>
Aspect Ratio	<u>2.265</u>	<u>2.265</u>
Rate of Taper	<u>1.177</u>	<u>1.177</u>
Taper Ratio	<u>0.200</u>	<u>0.200</u>
Dihedral Angle, degrees	<u>3.500</u>	<u>3.500</u>
Incidence Angle, degrees	<u>0.500</u>	<u>0.500</u>
Aerodynamic Twist, degrees	<u>+ 3.000</u>	<u>+ 3.000</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
0.25 Element Line	<u>35.209</u>	<u>35.209</u>
Chords:		
Root (Theo) B.P.O.O.	<u>689.243</u>	<u>20.677</u>
Tip, (Theo) B.P.	<u>137.849</u>	<u>4.135</u>
MAC	<u>474.812</u>	<u>14.244</u>
Fus. Sta. of .25 MAC	<u>1126.721</u>	<u>33.802</u>
W.P. of .25 MAC	<u>291.00</u>	<u>8.730</u>
B.L. of .25 MAC	<u>187.335</u>	<u>5.620</u>
<u>EXPOSED DATA</u>		
Area (Theo) Ft <sup>2</sup>	<u>1812.221</u>	<u>1.631</u>
Span, (Theo) In. BP108	<u>736.682</u>	<u>22.100</u>
Aspect Ratio	<u>2.058</u>	<u>2.058</u>
Taper Ratio	<u>0.245</u>	<u>0.245</u>
Chords		
Root BP108	<u>570.623</u>	<u>1.627</u>
Tip 1.00 $\frac{b}{2}$	<u>137.851</u>	<u>4.136</u>
MAC	<u>354.238</u>	<u>10.627</u>
Fus. Sta. of .25 MAC	<u>1164.227</u>	<u>35.077</u>
W.P. of .25 MAC	<u>292.0</u>	<u>8.760</u>
B.L. of .25 MAC	<u>239.678</u>	<u>7.190</u>
Airfoil Section (Rockwell Mod NASA)		
XXXX-64		
Root $\frac{b}{2}$ =	<u>0.113</u>	<u>0.113</u>
Tip $\frac{b}{2}$ =	<u>0.12</u>	<u>0.12</u>
Data for (1) of (2) Sides		
Leading Edge Cuff		
Planform Area Ft <sup>2</sup>	<u>79.13389</u>	<u>0.0712</u>
Leading Edge Intersects Fus M. L. @ Sta	<u>505.0</u>	<u>15.150</u>
Leading Edge Intersects Wing @ Sta	<u>1094.5</u>	<u>32.535</u>



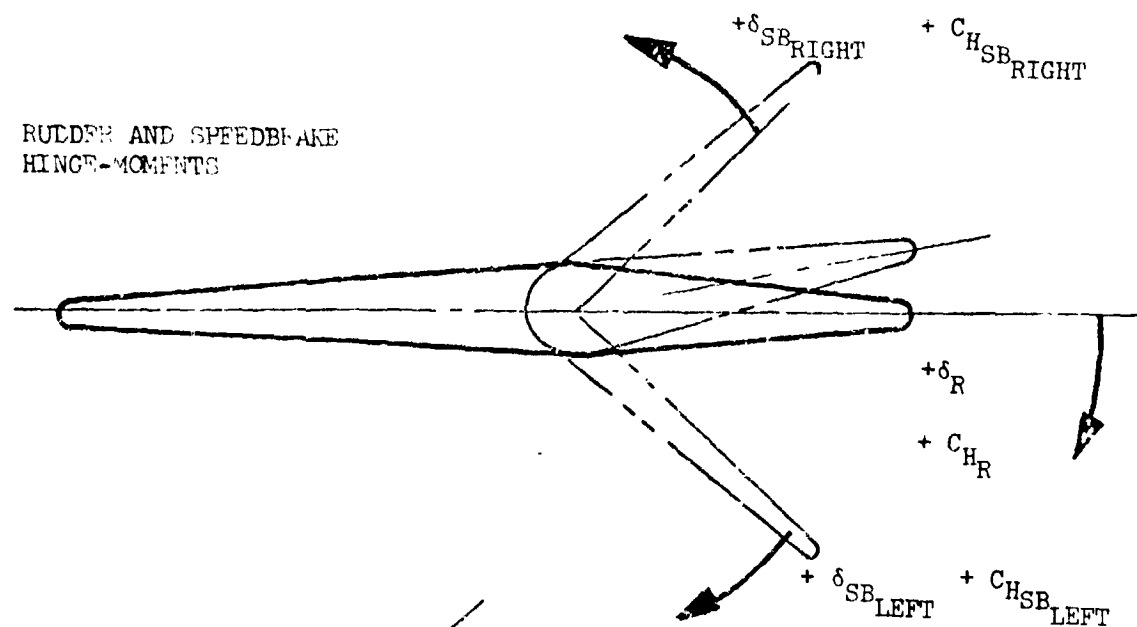
**Notes:**

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrow
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

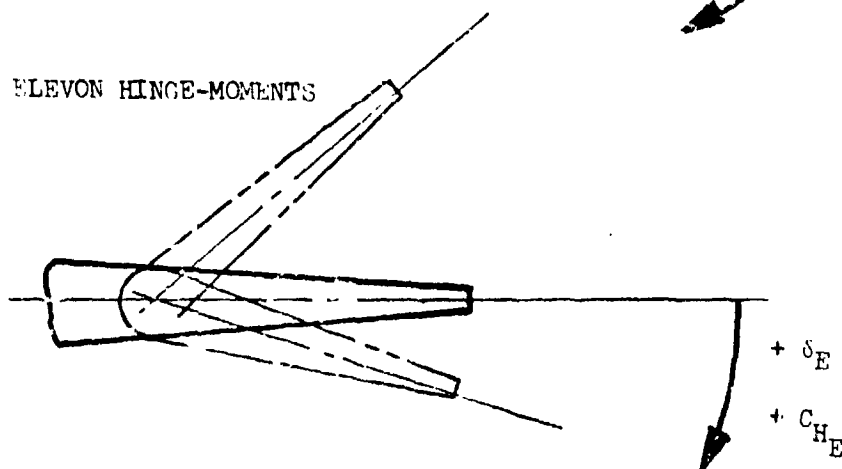
a. Body and stability axes

Figure 1. - Axis Systems.

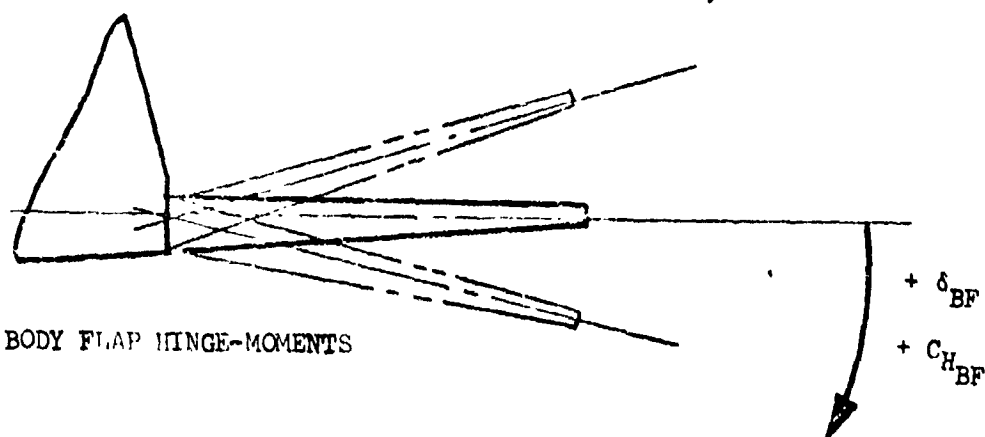
RUDDER AND SPEEDBRAKE  
HINGE-MOMENTS



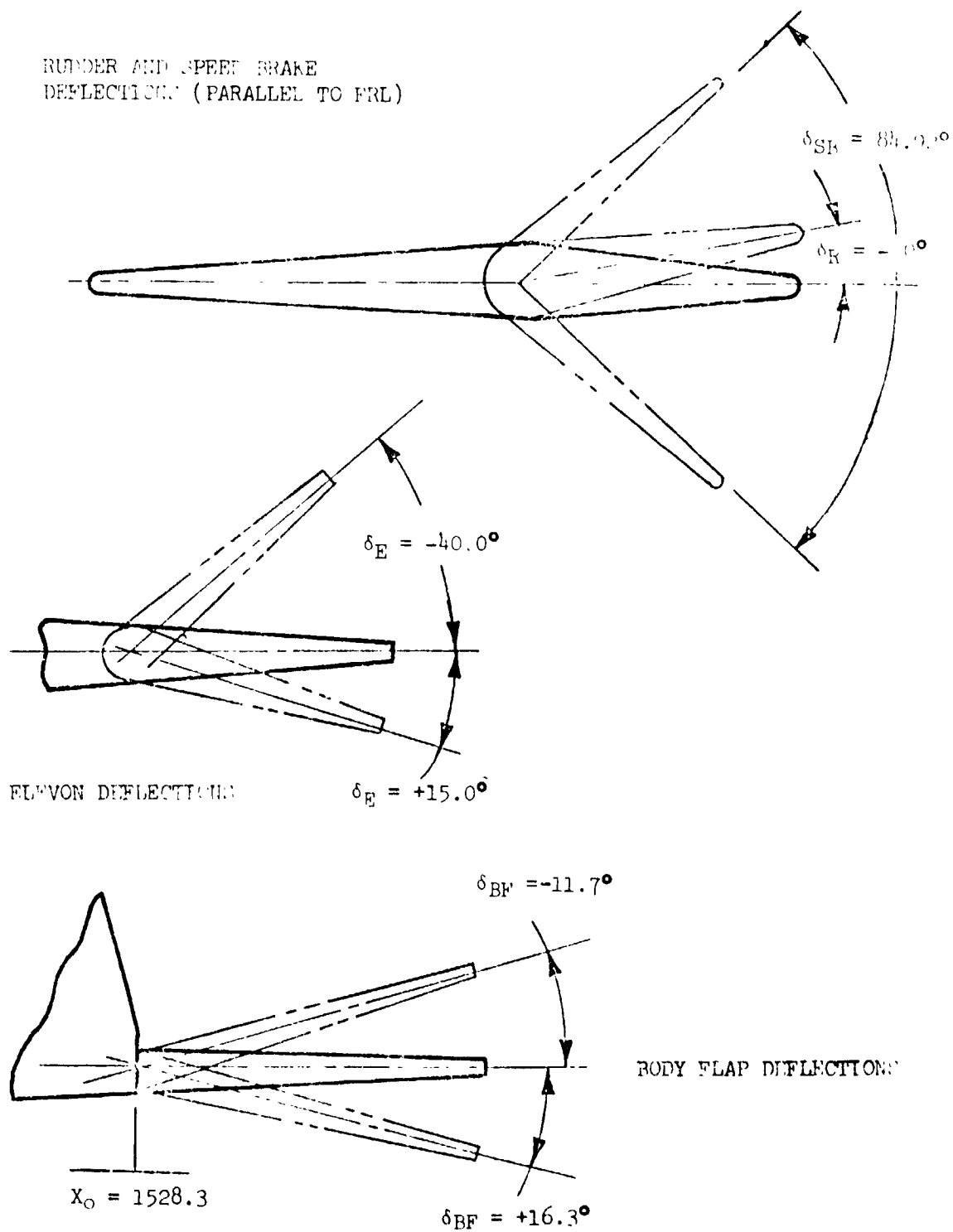
ELEVON HINGE-MOMENTS



BODY FLAP HINGE-MOMENTS



1. Definition of Hinge-Moment Directions  
Figure 1. - Continued



c. Definition of Angular Measurements

Figure 1. - Concluded.

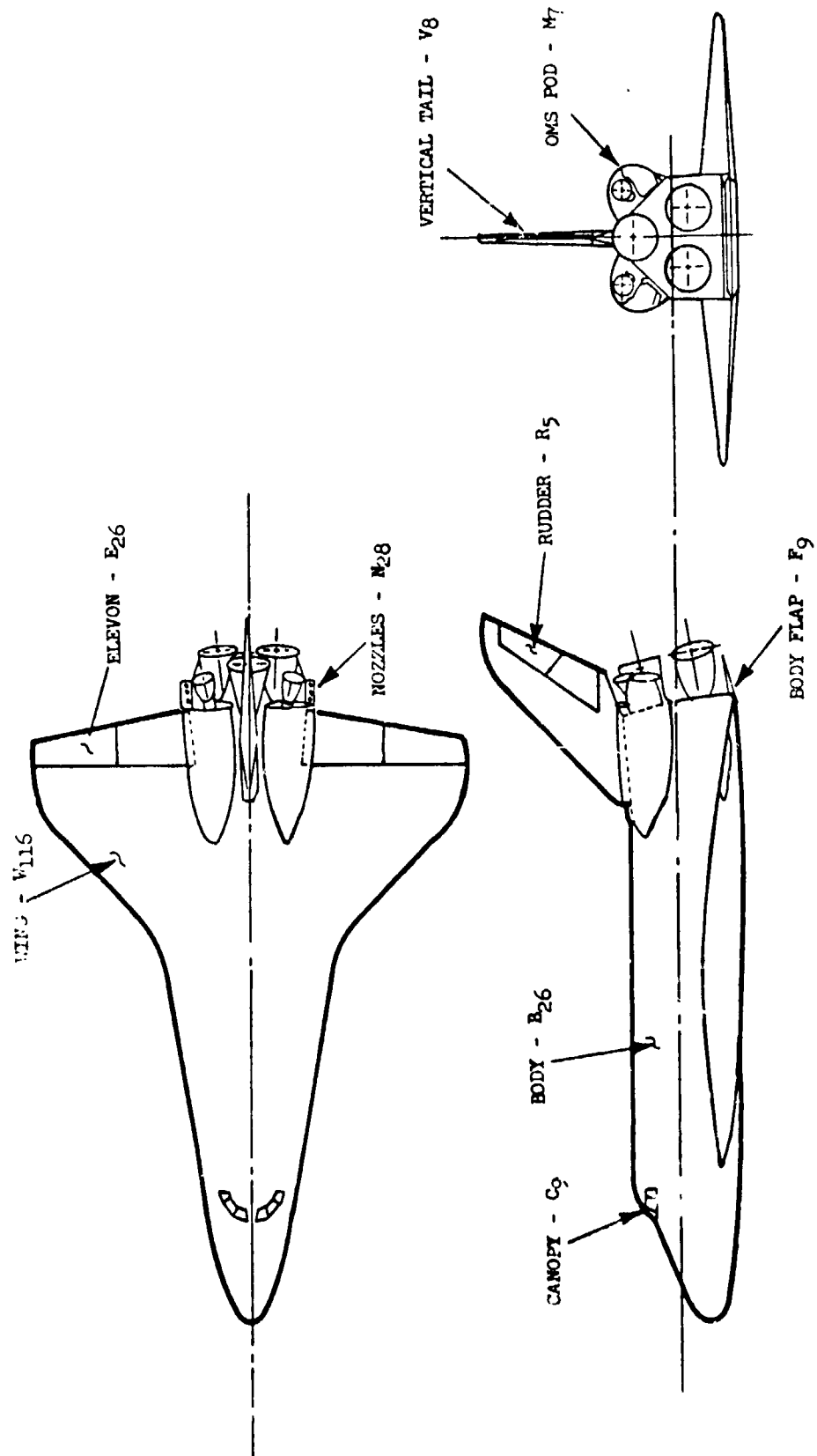


Figure 2. - Model sketches.  
a. Configuration 140 A/B

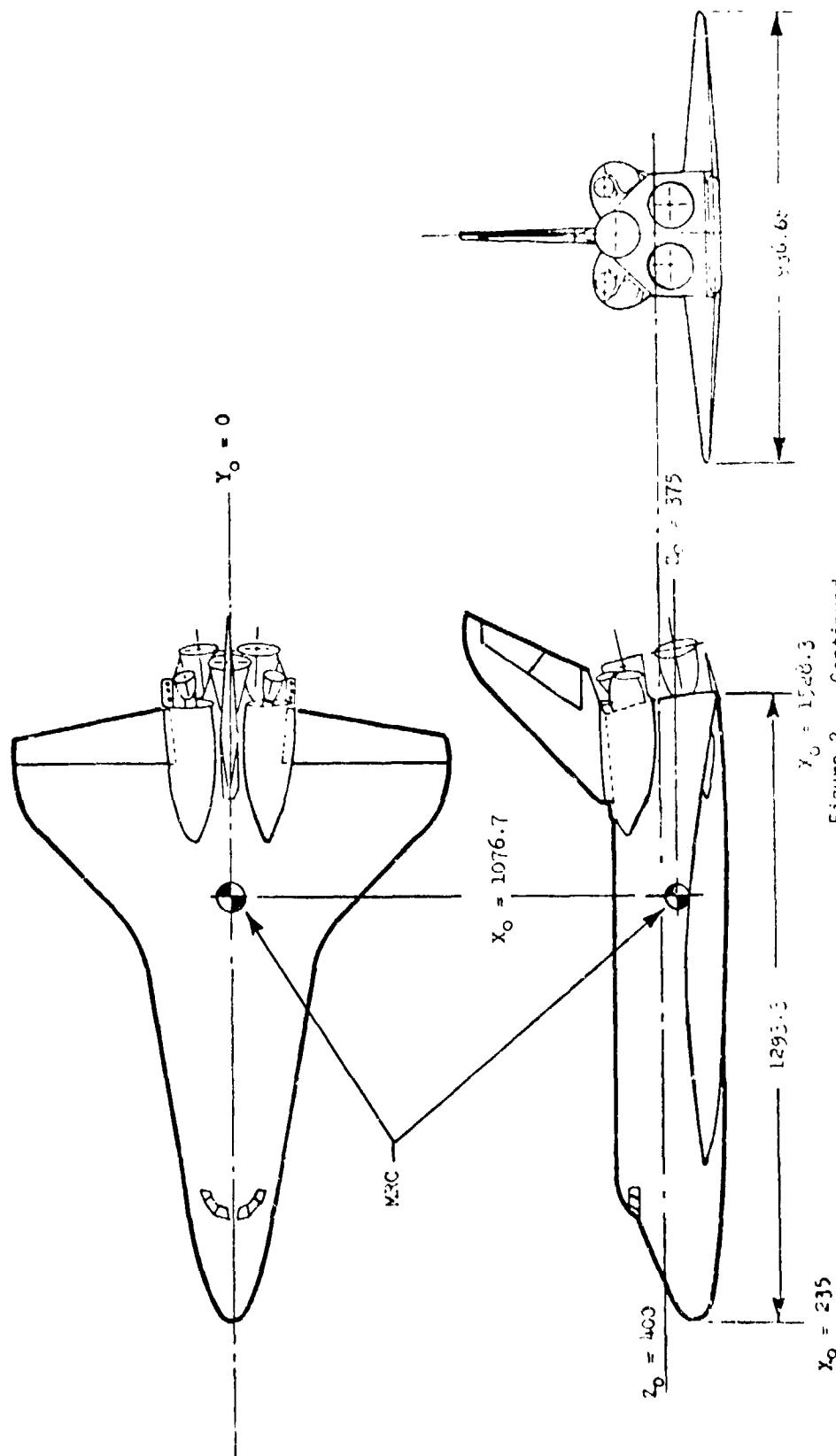


Figure 2. - Continued.

b. Dimensional Data

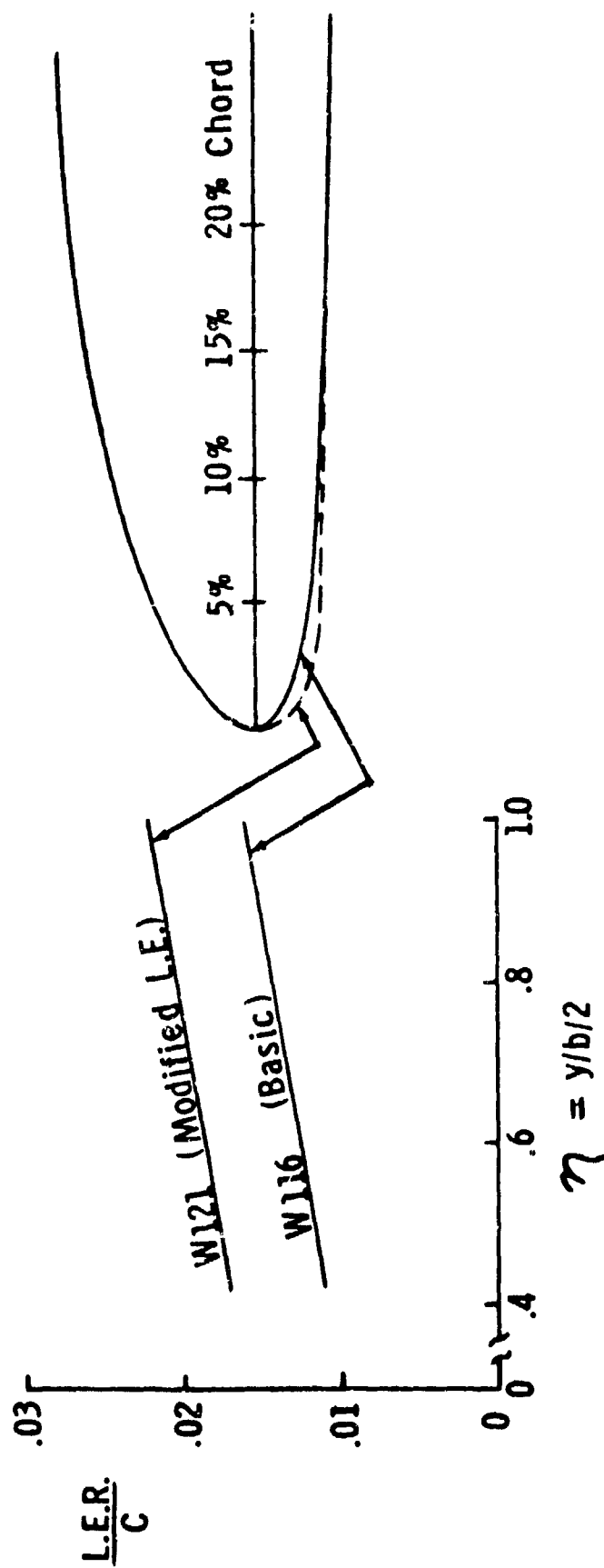
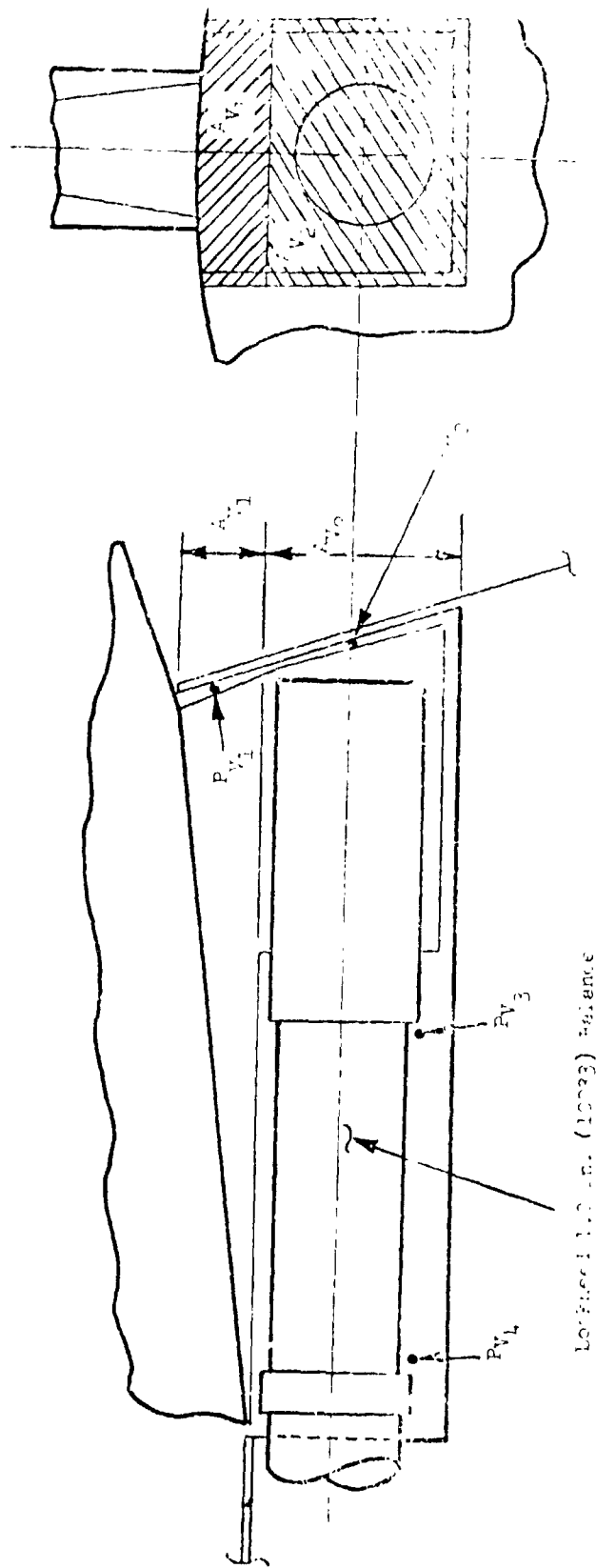
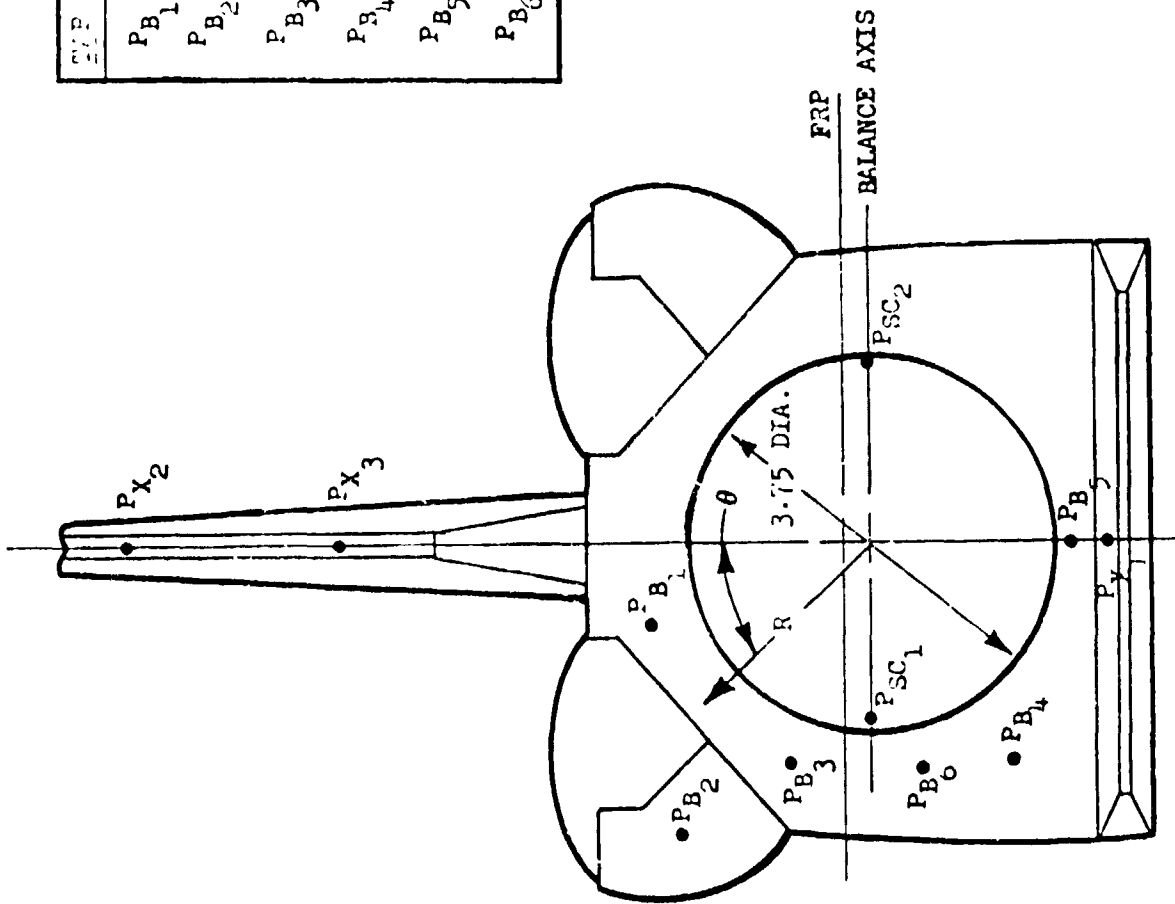


Figure 2. - Concluded.  
c. Wing Leading-Edge Modifications



a. Vertical Balance Pressure Orifice Locations  
Figure 3. - Pressure instrumentation.





ORIF.	$\theta$	R
$P_{B1}$	$23^\circ$	2.60
$P_{B2}$	$57^\circ$	CENTROID
$P_{B3}$	$70^\circ$	2.00
$P_{B4}$	$125^\circ$	3.30
$P_{B5}$	$180^\circ$	2.30
$P_{B6}$	$99^\circ$	2.85

b. Base Pressure Orifice Locations  
Figure 3. - Concluded.

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TELO11)

SYMBOL  
□  
◇

PARAMETRIC VALUES  
MACH 2.500 BETA .000 ELEVON .000  
3.002 AILRON .000 BOFLAP -11.700  
3.498 SPOBRK .000 RUDDER .000  
ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
SREF 2.4210 SC.FT.  
LREF 14.2440  
BREF 28.1004  
XMRP 32.3010  
YMRP .0000  
ZMRP 11.2500  
SCALE .0300

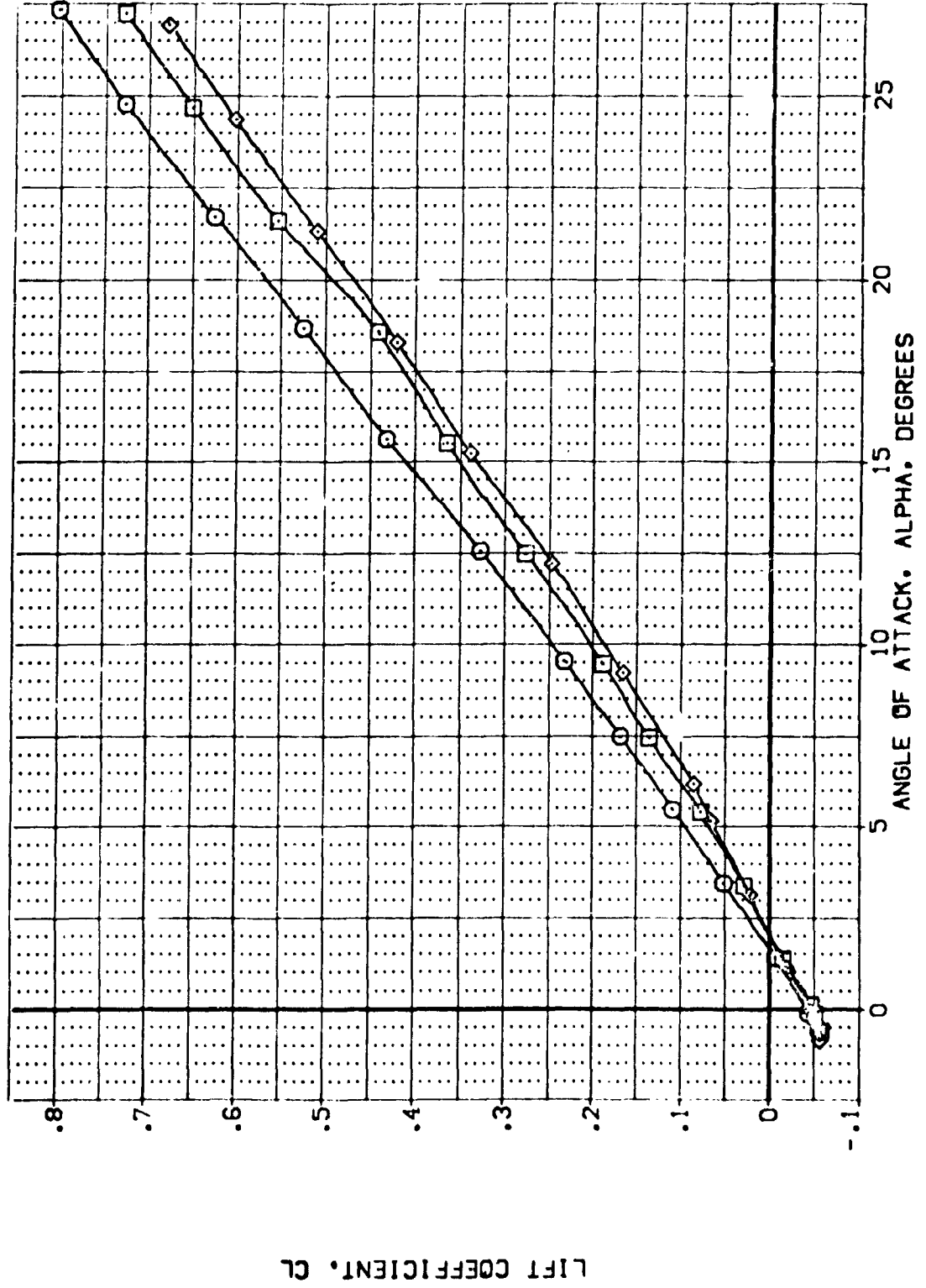


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TELO111)

SYMBOL

○ □ ◇

MAOH

2.500  
3.002  
3.498

BETA  
AILRON  
SPDRK  
ELEV-L

PARAMETRIC VALUES

.000 ELEVON  
.000 BDFLAP  
56.000 RUDDER  
.000 ELEV-R

REFERENCE INFORMATION

2.4210 SC.FT.  
14.2440 IN.  
28.1004 IN.  
32.3010 IN.  
0.0000 IN.  
11.2500 IN.  
0.0300 SCALE

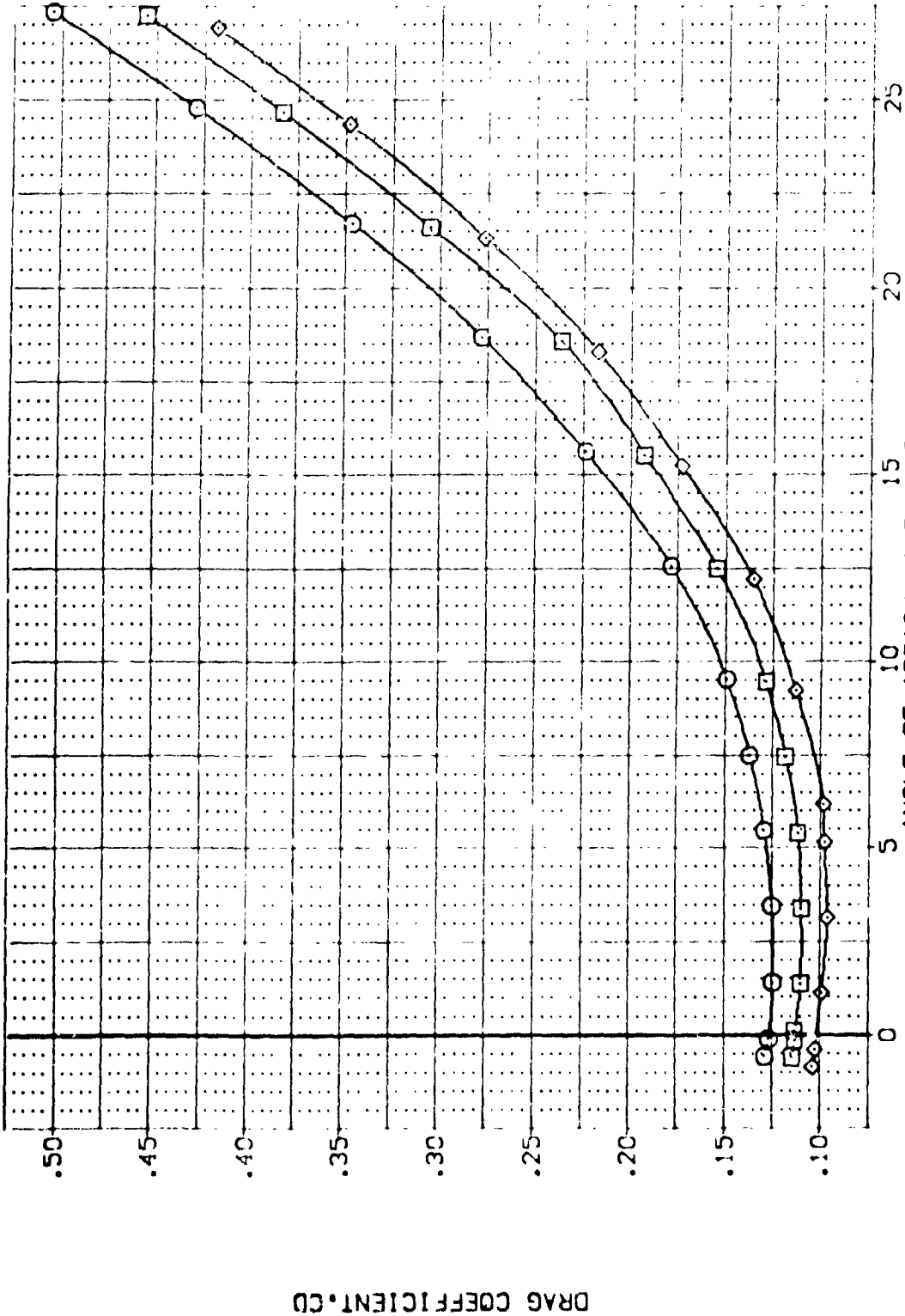


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TELO11)

SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.500		ELEVON	SREF 2.4210
□	3.002		ELEVON	LREF 11.2440
◇	3.498		BD FLAP	BREF 28.1004
			RUDER	XMRP 32.3010
			ELEV-R	YMRP .0000
			ELEV-L	ZMRP 11.2500
				SCALE .0300

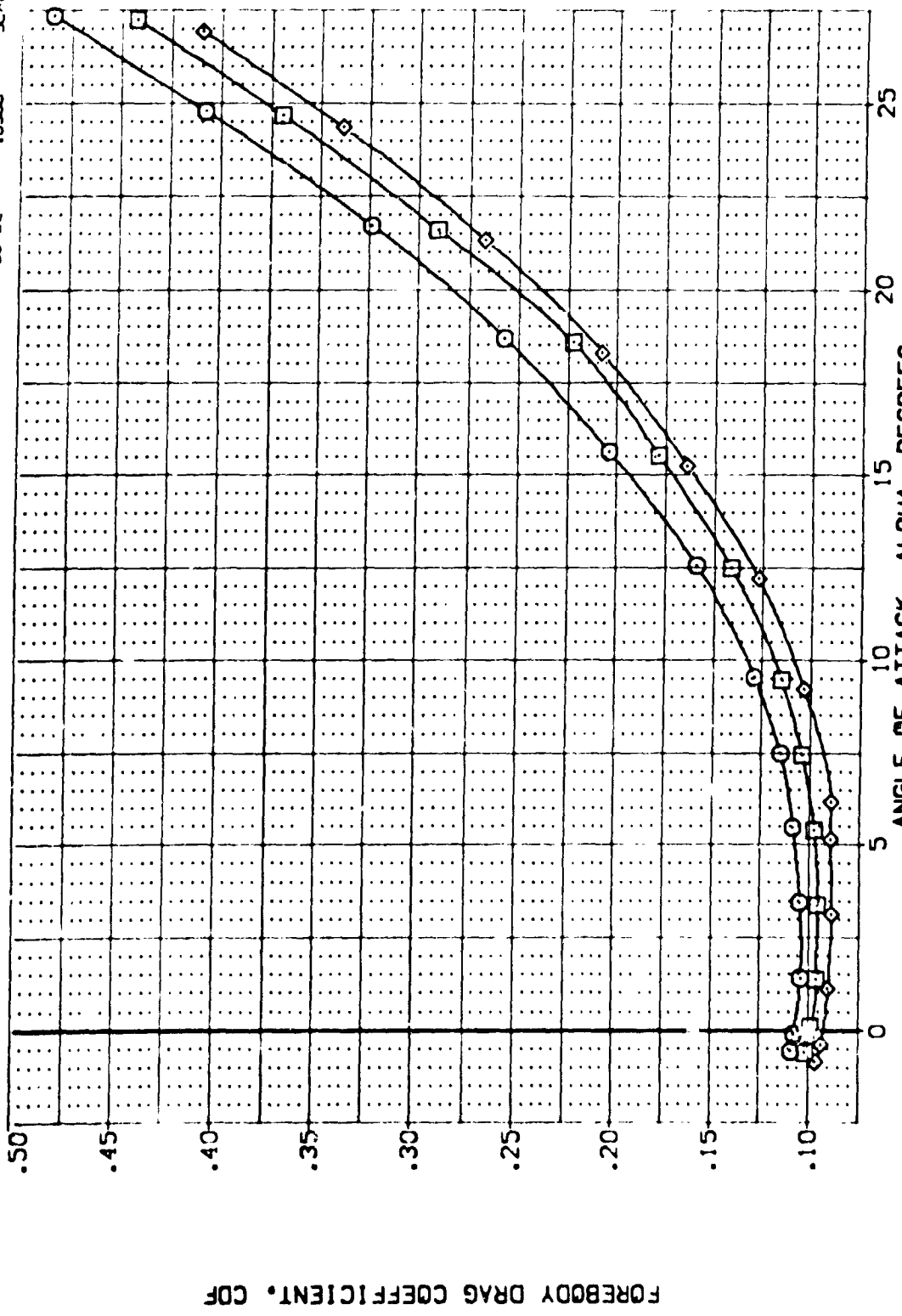


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TELO11)

SYMBOL  
○ □ ◇

MACH  
2.500  
3.002  
3.498

BETA  
AIRLON  
SPOBRK  
ELEV-L

PARAMETRIC VALUES  
.000  
.000  
55.000  
.000

ELEVON  
BDF LAP  
RUDDER  
ELEV-R

.000  
-11.700  
.000  
.000

REFERENCE INFORMATION  
SREF 2.4210 SQ.FT.  
LREF 14.2440  
BREF 28.1004  
XREF 32.3013  
YREF 11.2503  
ZREF .0300  
SCALE

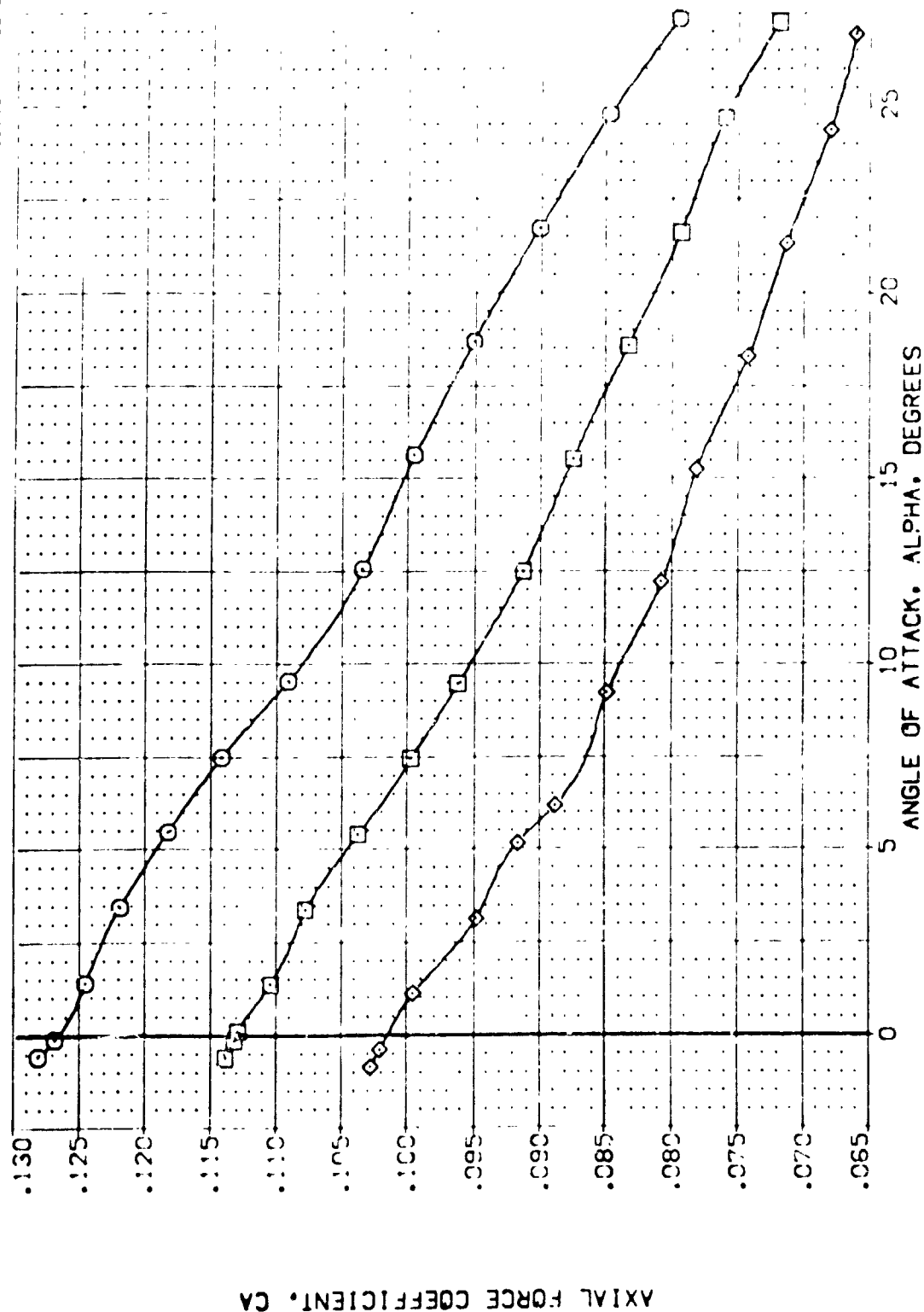


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

ARC 87-747 0A53C B C M F W1 V NOM. RN/L

(TELO11)

SYMBOL  
○ □ ◇

MACH  
2.500  
3.002  
3.498

BETA  
ATLIRON  
SPOBRN  
ELEV-L

PARAMETRIC VALUES  
.000 ELEVON  
.000 BOFLAP  
55.000 RUDDER  
.000 ELEV-R

REFERENCE INFORMATION  
SREF 2.4210 SQ.FT.  
LREF 14.2440 N.  
BREF 28.1004 N.  
XMRP 32.3010 N.  
YMRP .0000 N.  
ZMRP 11.2500 N.  
SCALE .0300

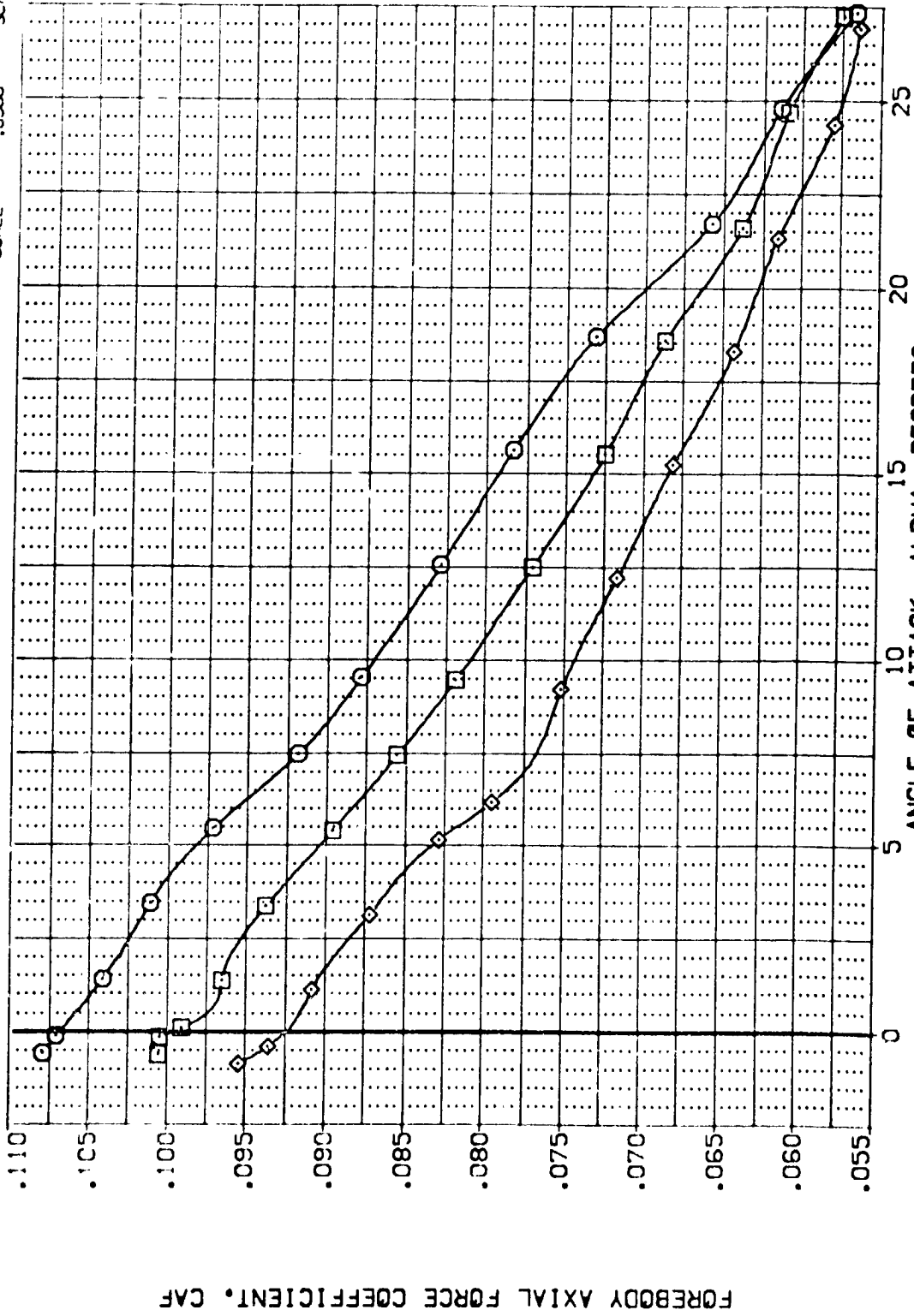


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TELO111)

SYMBOL

MACH

BETA  
AILRON  
SPDRK  
ELEV-L

PARAMETRIC VALUES

.000 ELEVON  
.000 BOFLAP  
55.000 RUDDER  
.000 ELEV-R

.000

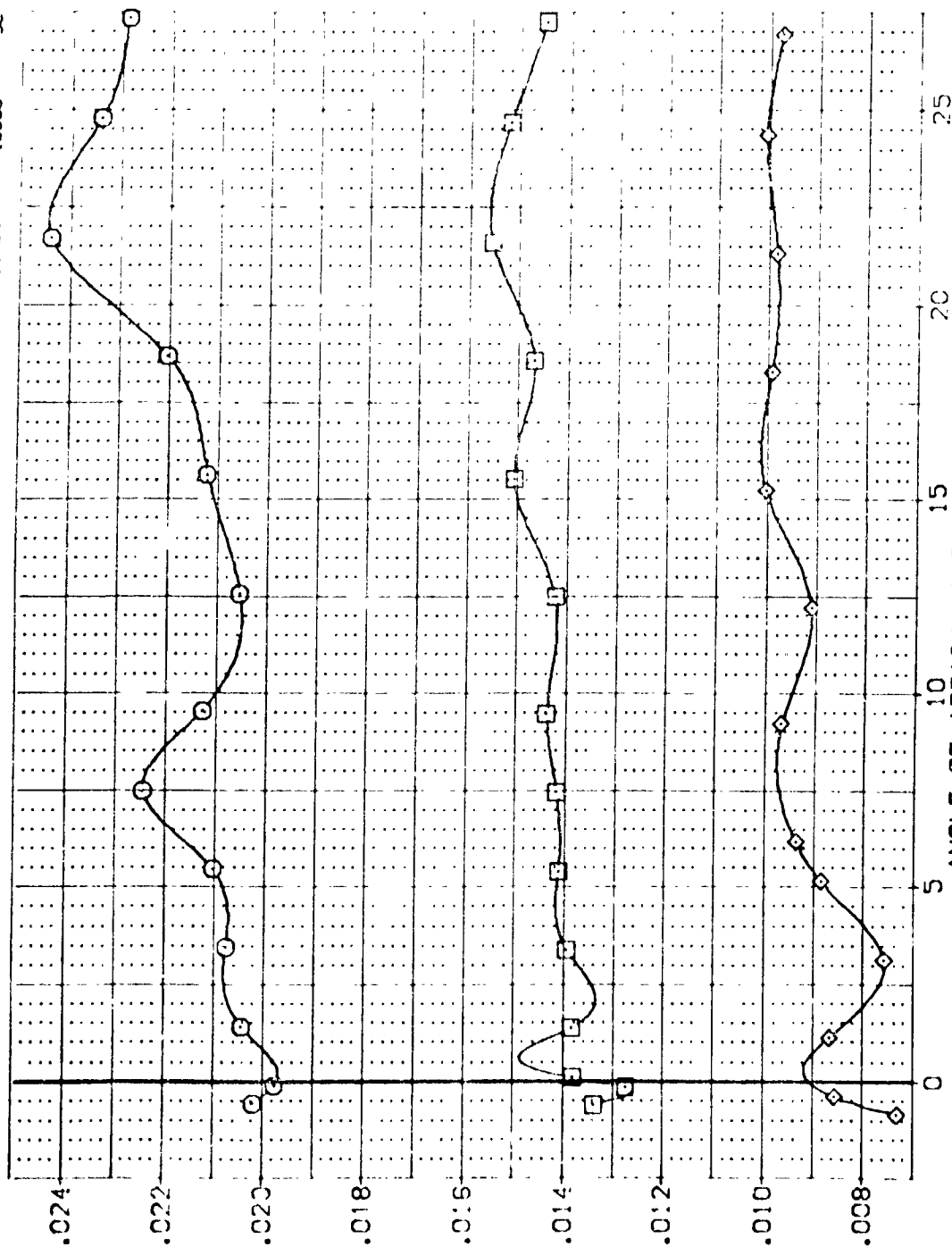
-11.700  
.000  
.000

SRPF

LRPF  
XRPF  
YRPF  
ZRPF  
SCALE

REFERENCE INFORMATION

2.4210 SQ.FT.  
14.2440  
28.1004  
30.3010  
11.2500  
11.0300



BASE AXIAL FORCE COEFFICIENT, CAB

ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

ARC 87-747 0A53C B C M F W1 V NGM. RN/L (TELO11)

SYMBOL	MACH	BETA	AILRON	SPOBRK	ELEV-L	PARAMETRIC VALUES	ELEVON	BOFLAP	RUDDER	ELEV-R	REF	SC.F.T.
◇	2.500					.000	.000				SREF	2.4210
□	3.002					.000	.000				L-REF	14.2440
◇	3.498					.000	.000				BREF	28.0004
						.000	.000				X-REF	32.5010
						.000	.000				Y-REF	11.2500
						.000	.000				Z-REF	.0300
						.000	.000				SCALE	

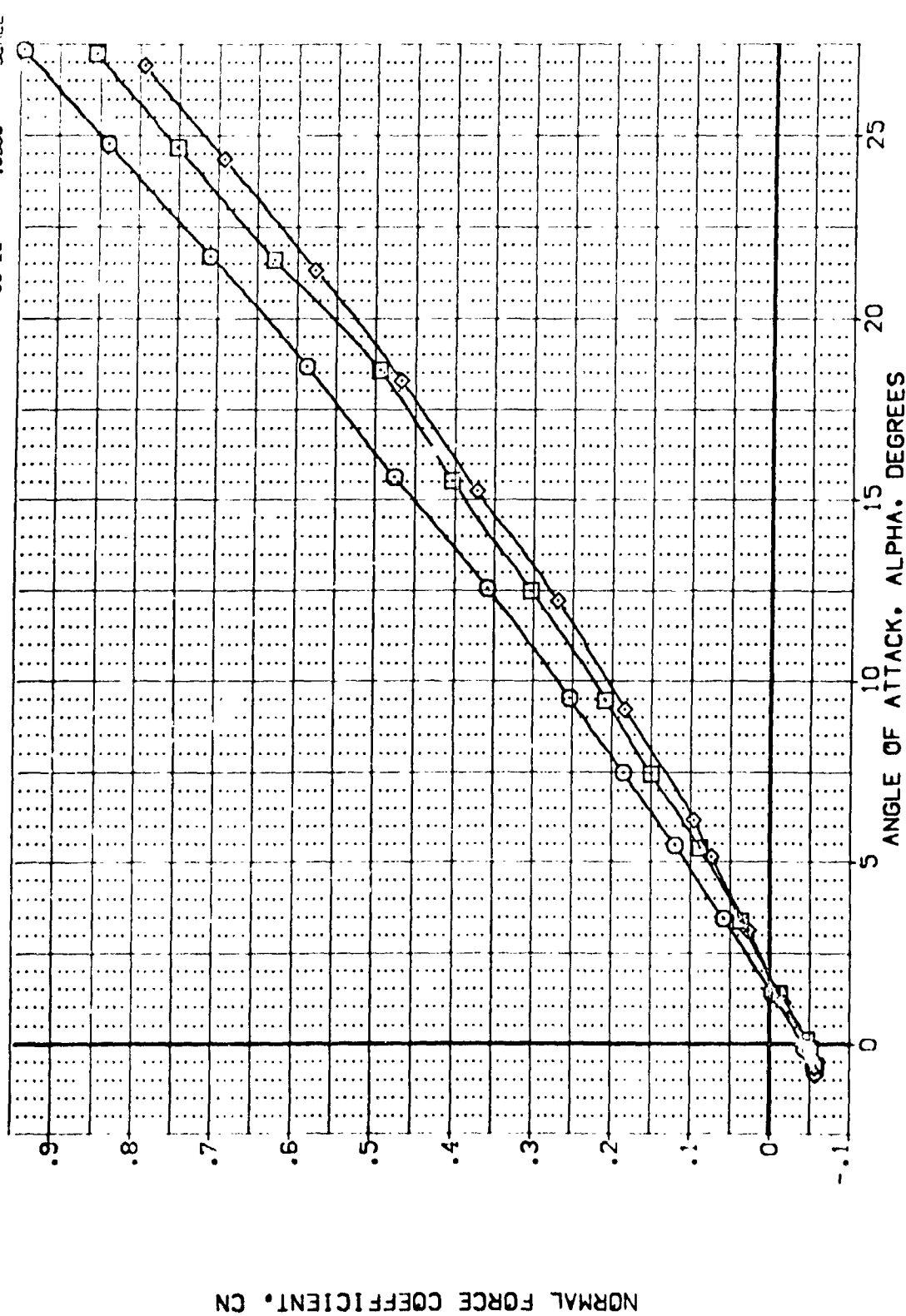


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE



ARC 87-747 OAS3C B C M F W1 V NOM. RN/L (TELO11)

SYMBOL	PARAM	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.500	.000	ELEVON	SREF 2.4210
□	3.002	.000	BD FLAP	LREF 14.2440
◇	3.498	.000	RUDDER	BRF 28.1004
		.000	ELEV-R	YREF 32.3010
		.000	ELEV-L	ZREF .0000
		.000		YREF 11.2500
		.000		ZREF .0300
		.000		SCALE

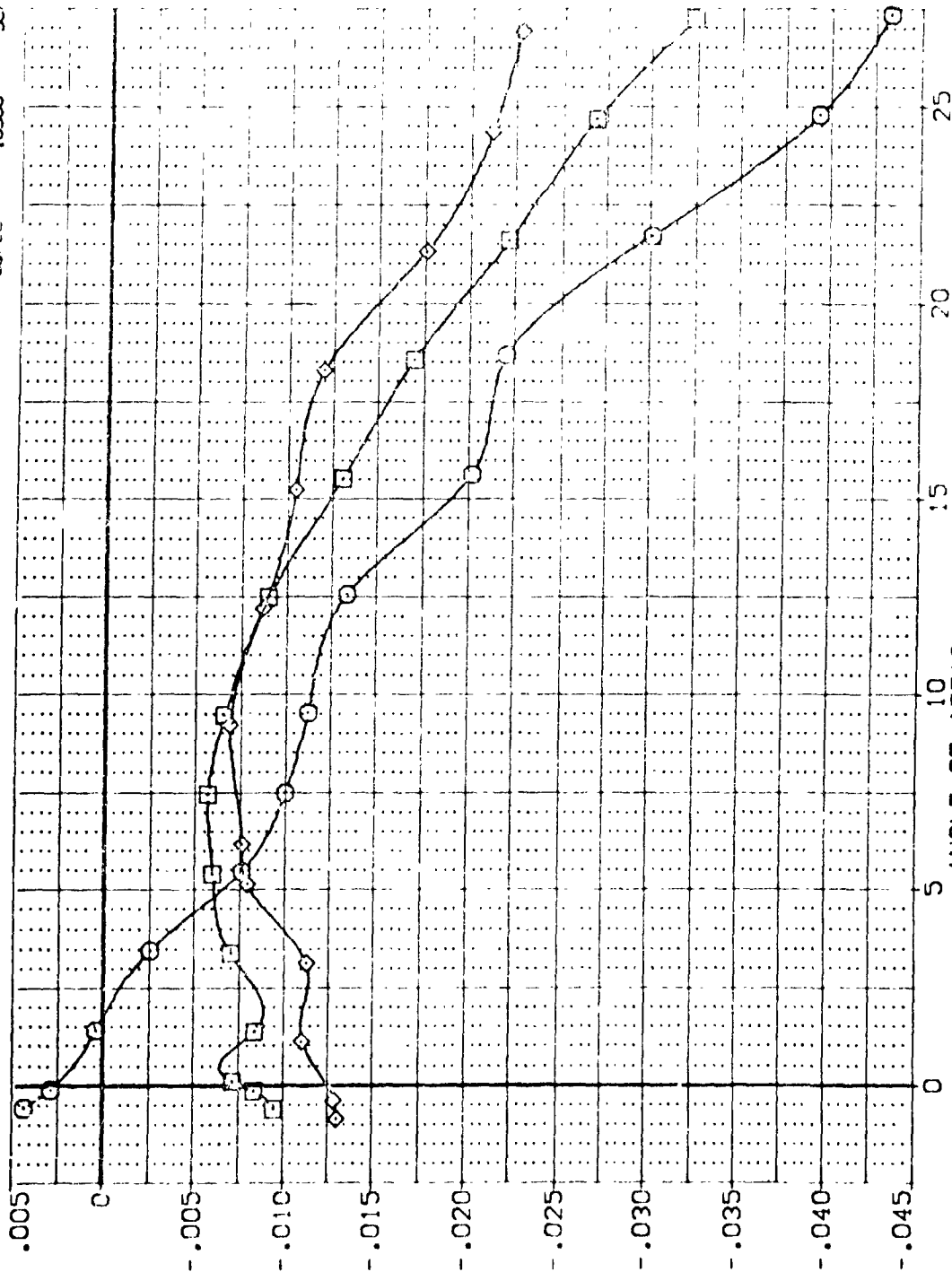


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

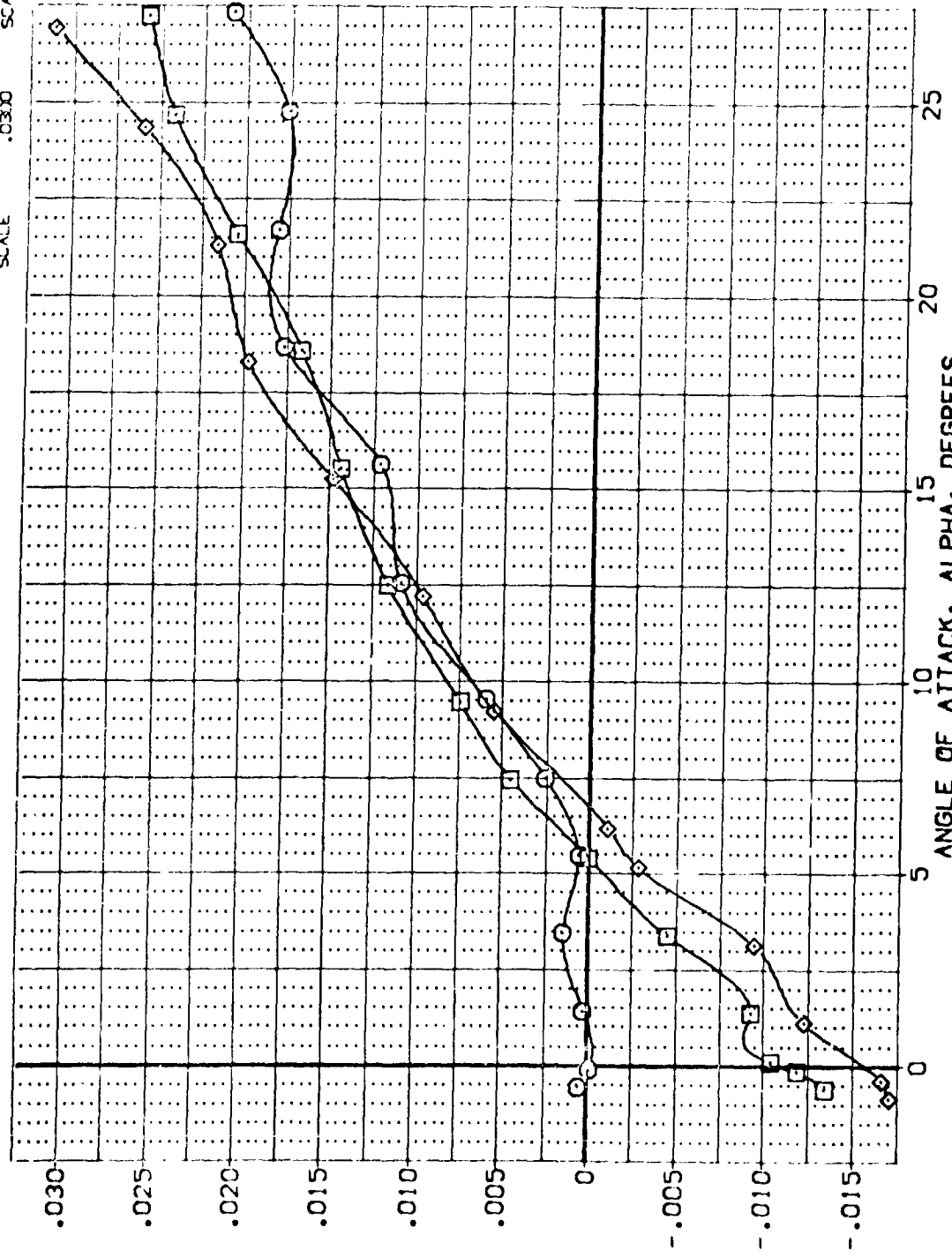
ARC 87-747 0A53C B C M F W1 V NOM. RN/L

(TELO11)

SYMBOL  
 ○ □ ◇

PARAMETRIC VALUES  
 MACH 2.500  
 3.002  
 3.498  
 BETA .000  
 AILRON .000  
 SPOBRK 55.000  
 ELEV-L .000  
 ELEVON .000  
 BDF LAP -11.700  
 RUDDER .000  
 ELEV-R .000

REFERENCE INFORMATION  
 SREF 2.4210  
 LREF 14.2440  
 BREF 28.1004  
 XMRP 32.3010  
 YMRP .0000  
 ZMRP 11.2500  
 IN. IN.  
 SCALE .0300



PITCHING MOMENT COEFFICIENT (Cm) C.G., CLMFT

FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TELO11)

MACH	PARAMETRIC VALUES				REFERENCE INFORMATION			
	BETA	ELEVON	ELEVON		SREF	2.4210	50. FT.	
2.500	.000	.000	.000		LREF	14.2440		
3.002	.000	.000	.000		BREF	28.1004		
3.498	.000	.000	.000		XREF	32.3010		
					YREF	11.0000		
					ZREF	11.2500		
					SCALE	.0300		

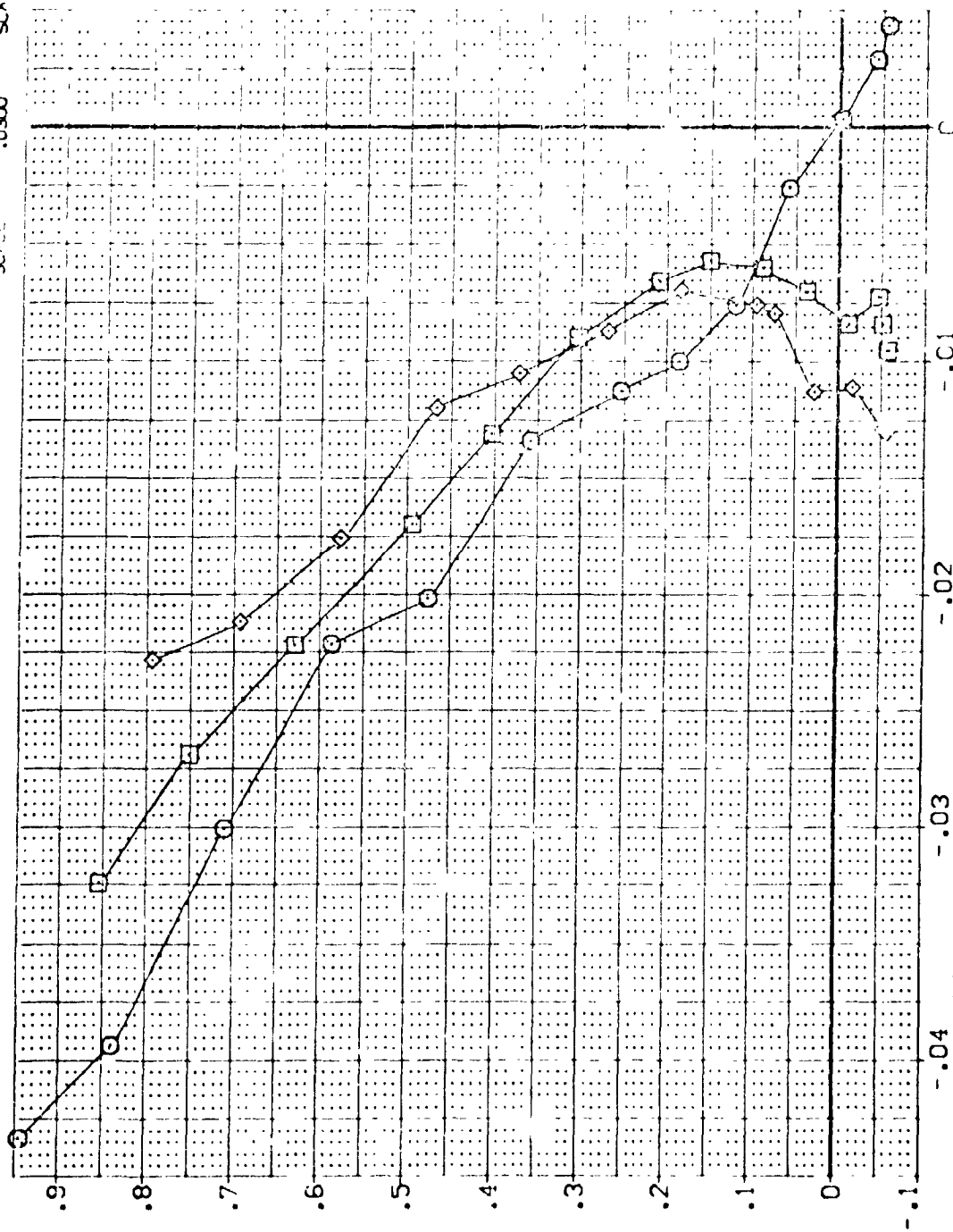


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TEL011)

MACH		PARAMETRIC VALUES		REFERENCE INFORMATION	
2.500	BETA	.000	ELEVON	SREF	2.4210
3.002	AILERON	.000	BOFLAP	LREF	14.2440
3.498	SPOILER	55.000	RUDDER	BREF	28.0004
	ELEV-L	.000	ELEV-R	XMRP	32.3010
				YMRP	.0000
				ZMRP	11.2500
				SCALE	.0300

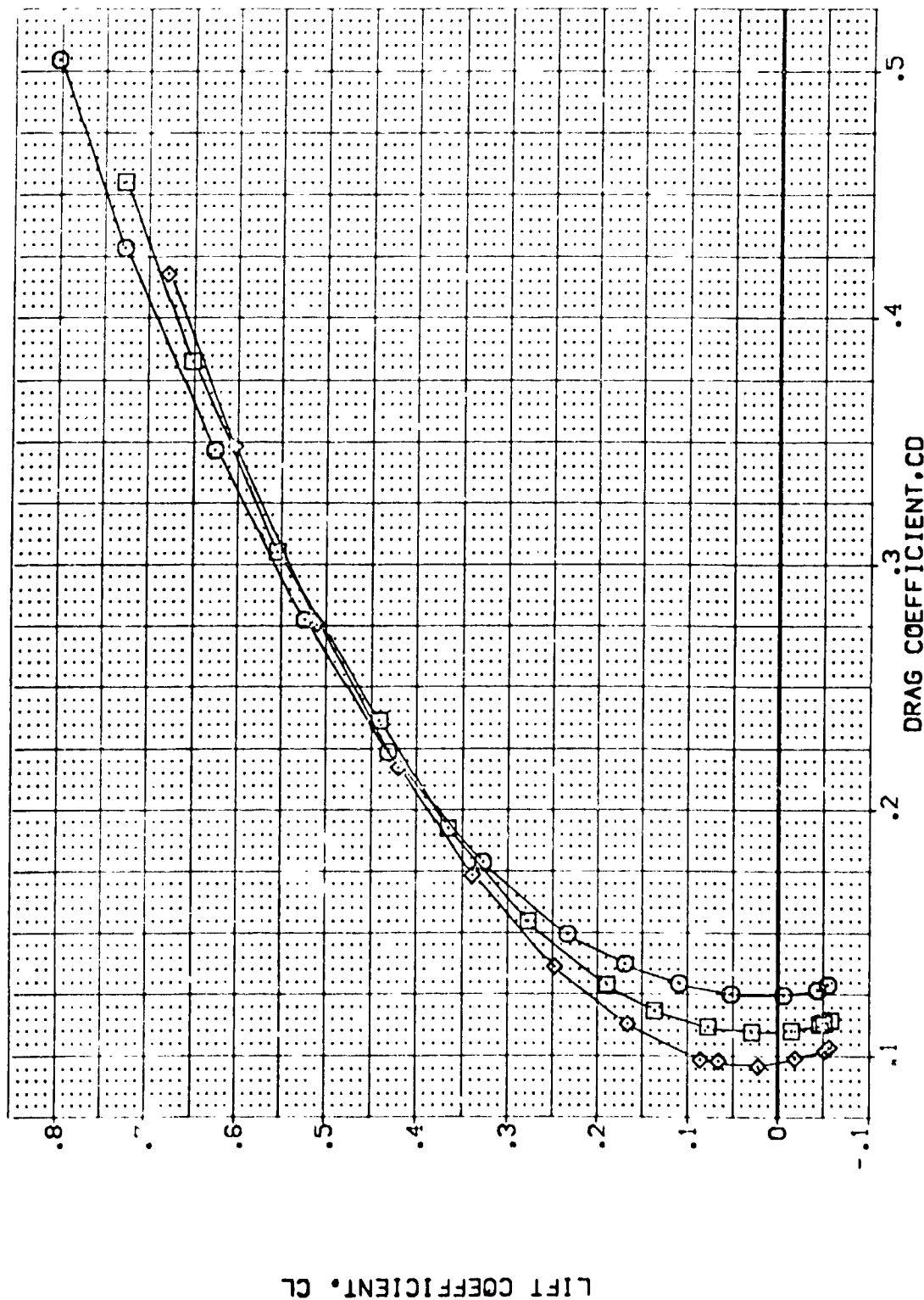


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

(TEL011)

**bus**   

MACH	BETA
2.500	AIRRON
3.002	SPOBRK
3.498	ELEV-L

PARAMETRIC VALUES
.000 ELEVON
.000 BDFLAP
55.000 RJDDER
.000 ELEV-R

REF	2 4210	50 FT.
REF	14 2440	N.
REF	28 1004	N.
REF	32 3010	N.
REF	0000	N.
REF	11 2500	N.
SCALE	1:500	SCALE

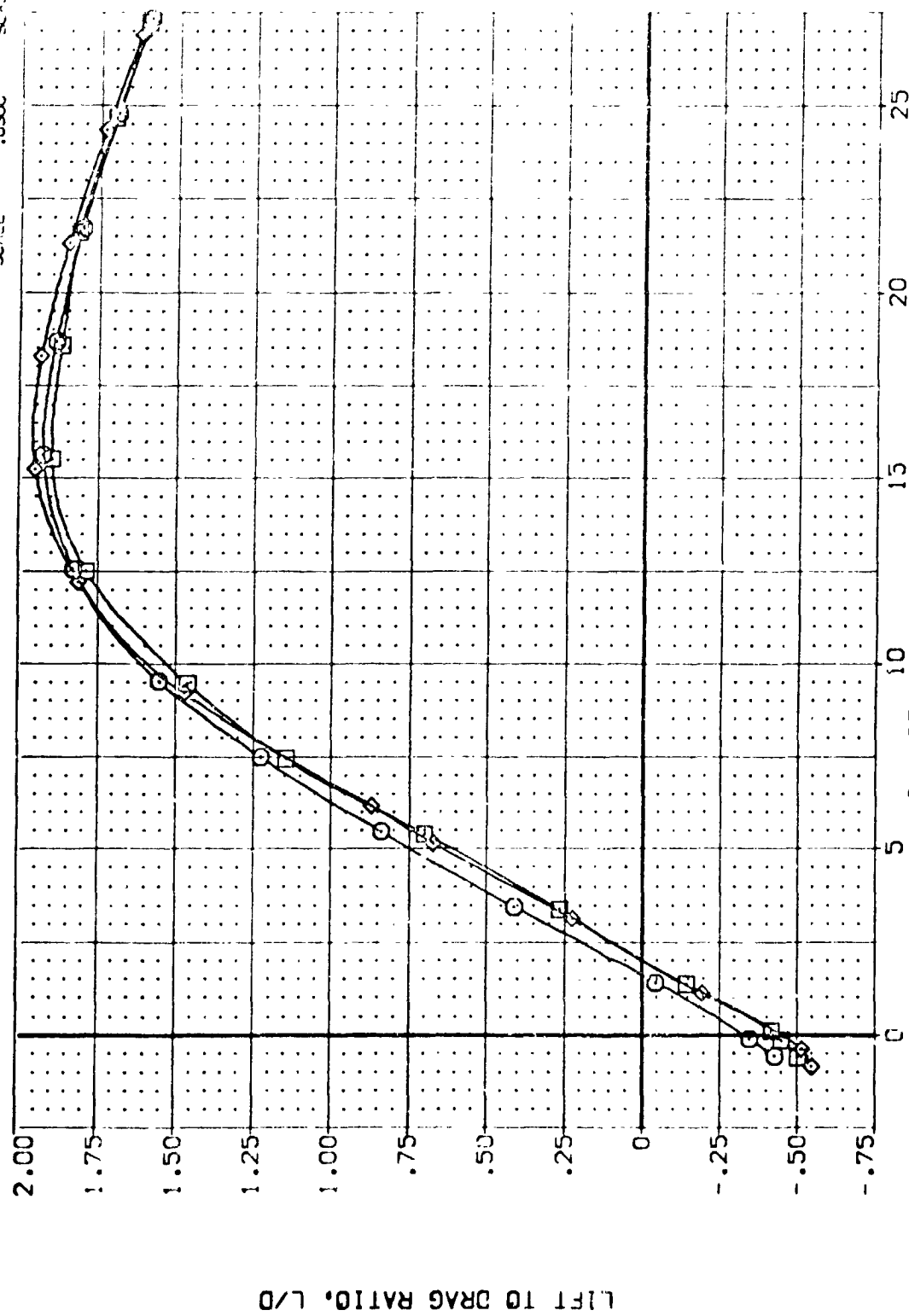


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (AEL011)

SYMBOL  
◇ □

MACH  
2.500  
3.002  
3.498

PARAMETRIC VALUES  
BETA .000 ELEVON .000  
AILRON .000 BDFLAP -11.700  
SPO3RK 55.000 RUDDER .000  
ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
SPREF 2.4210 SQ.FT.  
LPREF 14.2440  
BPREF 28.1004  
XMPRP 32.3013  
YMPRP .0003  
ZMPRP 11.2500  
SCALE .0300

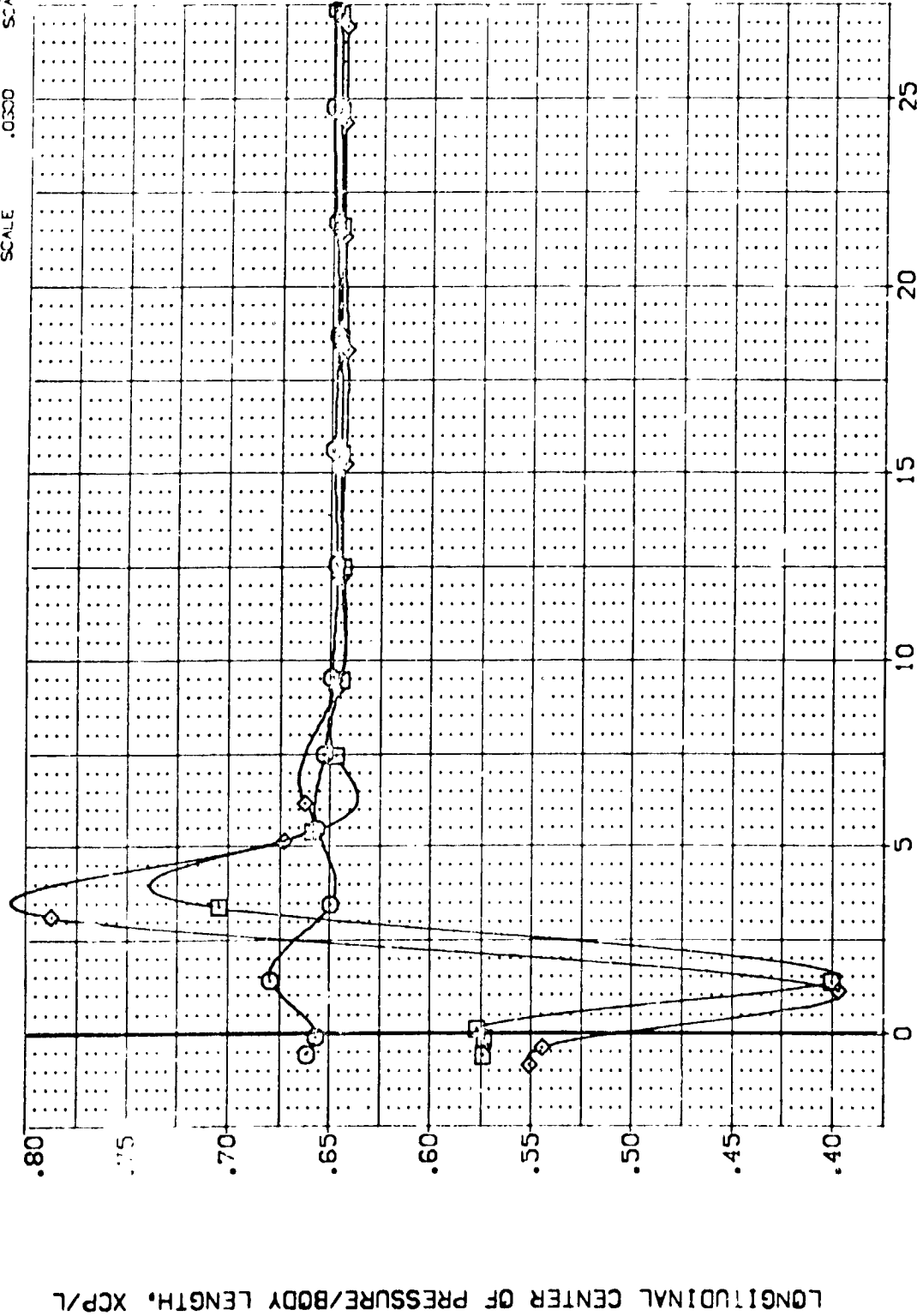


FIG. 4 LONGITUDINAL CHARACTERISTICS OF TOTAL VEHICLE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	HIGH R/V/L	LOW R/V/L	RV/L	ALITON	BDY LAP	SPDRK	REFERENCE INFORMATION
(12LR17)	ARC 87-747 OAS3C B C M F V1	V	V	3.240	.000	.000	55.000	SREF 7.4210 SC.FT.
(12LR16)	ARC 87-747 OAS3C B C M F V1	V	V	1.750	.000	.000	55.000	LRREF 14.2440
(12LR15)	ARC 87-747 OAS3C B C M F V1	V	V	1.740	.000	.000	55.000	BRREF 78.1004
								XMRP 32.3010
								YMRP .0000
								ZMRP 11.2500
								SCALE .0300

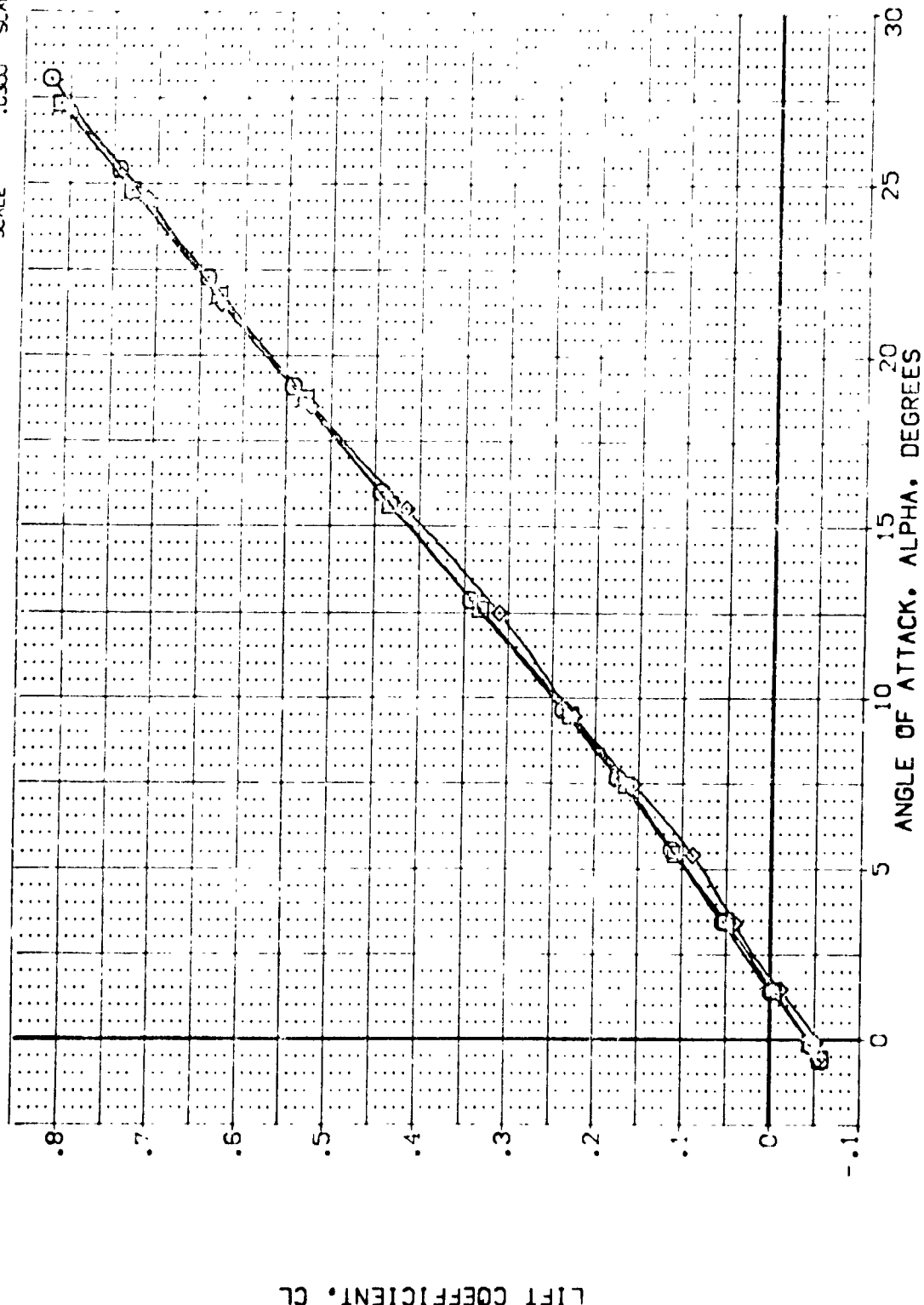


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RN/L	ALLRON	BDF LAP	SPDBRK	REFERENCE INFORMATION
[TEL:7]	ARC 87-747 CAS3C B C M F V1	3.240	.700	.000	55.000	SREF 2.4210
[TEL:6]	ARC 87-747 CAS3C B C M F V1	.750	.100	.000	55.000	LREF 14.2440
[TEL:5]	ARC 87-747 CAS3C B C M F V1	1.740	.500	.000	55.000	BREF 28.1004
						XMRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

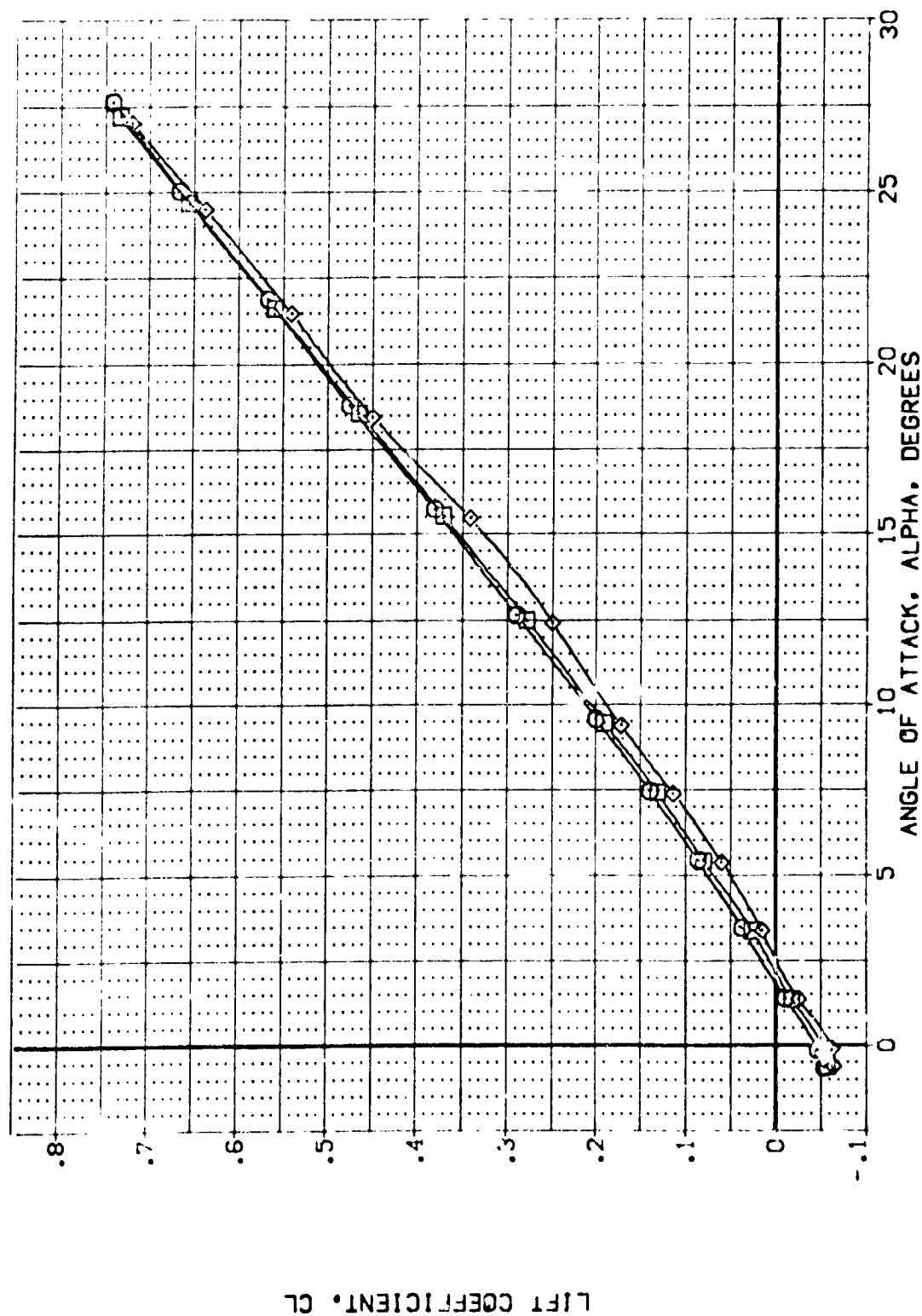


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	ALL-RON	BDF-LAP	SPOBRN	REFERENCE INFORMATION
(TELR17)	ARC 87-747 BASIC B C M F V I V	3.240	.000	.000	55.000	SREF 2.4210 SQ.FT.
(TELR16)	ARC 87-747 BASIC B C M F V I V	.750	.000	.000	55.000	LREF 14.2440
(TELR15)	ARC 87-747 BASIC B C M F V I V	1.740	.000	.000	55.000	BREF 28.1000
						XREF 32.3010
						YREF .0000
						ZREF 11.2500
						SCALE .0300

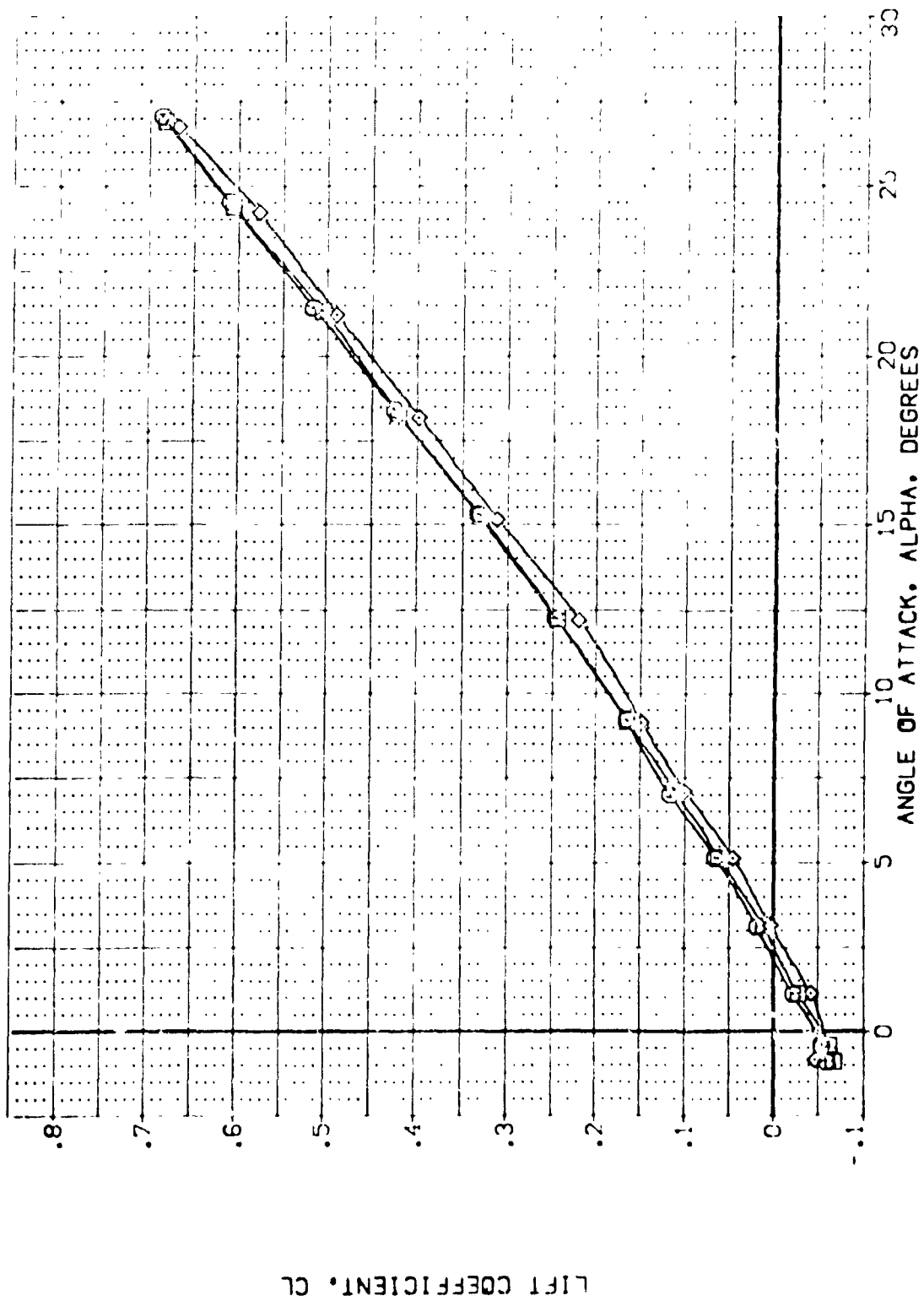


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AILPON	BO/LAP	SPDRBK	REFERENCE INFORMATION
[TEL217]	ARC 87-747 BASIC B C M F V I V	3.240	.000	.000	55.000	SREF 2.1210 50. FT.
[TEL216]	ARC 87-747 BASIC B C M F V I V	.750	.000	.000	55.000	LREF 14.2440 N.
[TEL215]	ARC 87-747 BASIC B C M F V I V	1.740	.000	.000	55.000	BREF 28.1000 N.
						XREF 32.3010 N.
						YREF .0000 N.
						ZREF 11.2500 N.
						SCALE .0300

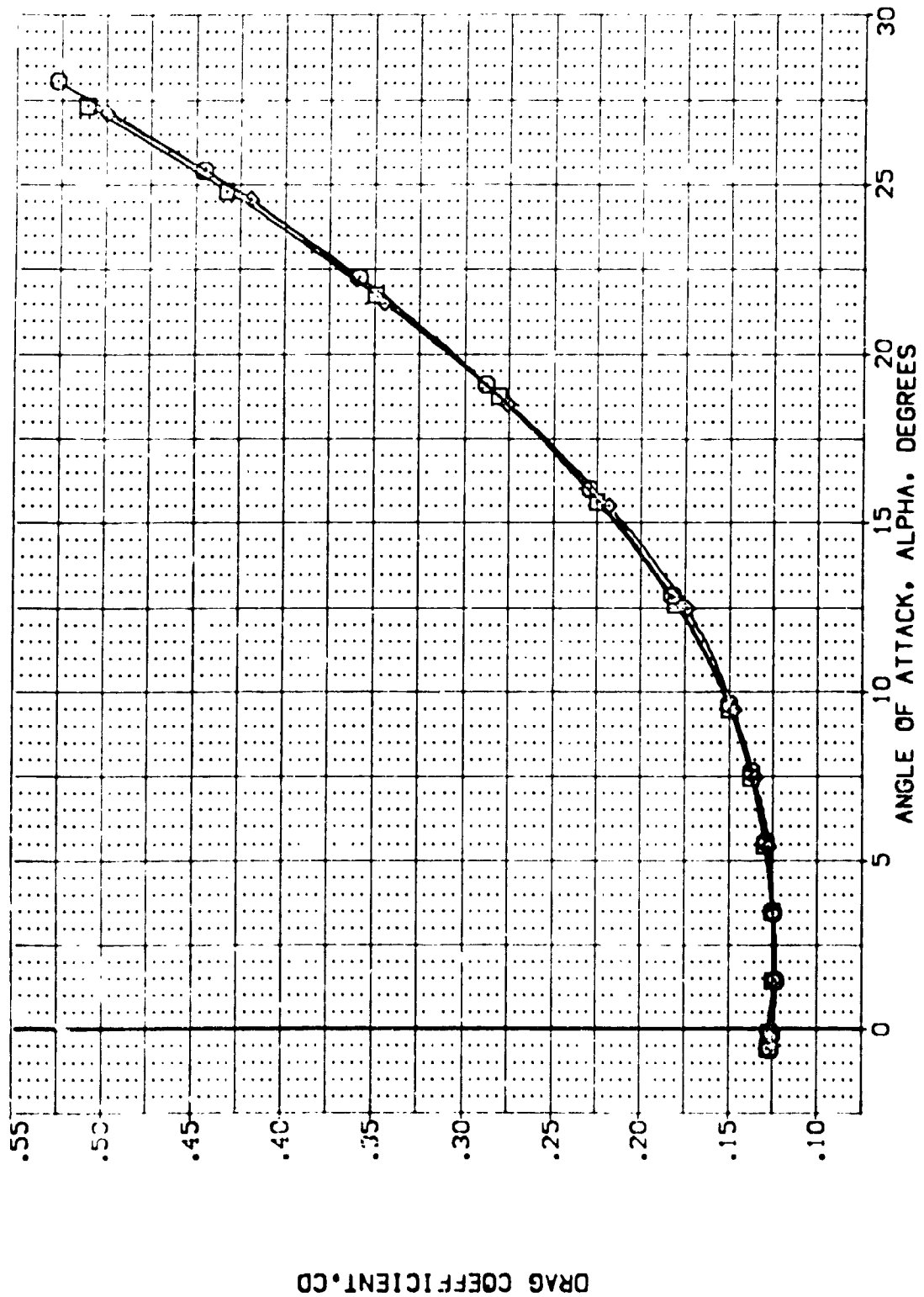


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RMVL	AILRON	BD FLAP	SPDRBK	REFERENCE INFORMATION
(TEL:17)	ARC 87-747 BASIC B C H F VI V	3.240	.000	.000	55.000	SREF 2.4213 50.00
(TEL:18)	ARC 87-747 BASIC B C H F VI V	1.750	.000	.000	55.000	LREF 14.2440 1.00
(TEL:19)	ARC 87-747 BASIC B C H F VI V	1.740	.000	.000	55.000	BREF 28.0001 1.00
						KREF 32.3013 1.00
						VMREF .0000 1.00
						ZMREF 11.2500 1.00
						SCALE 1.0000

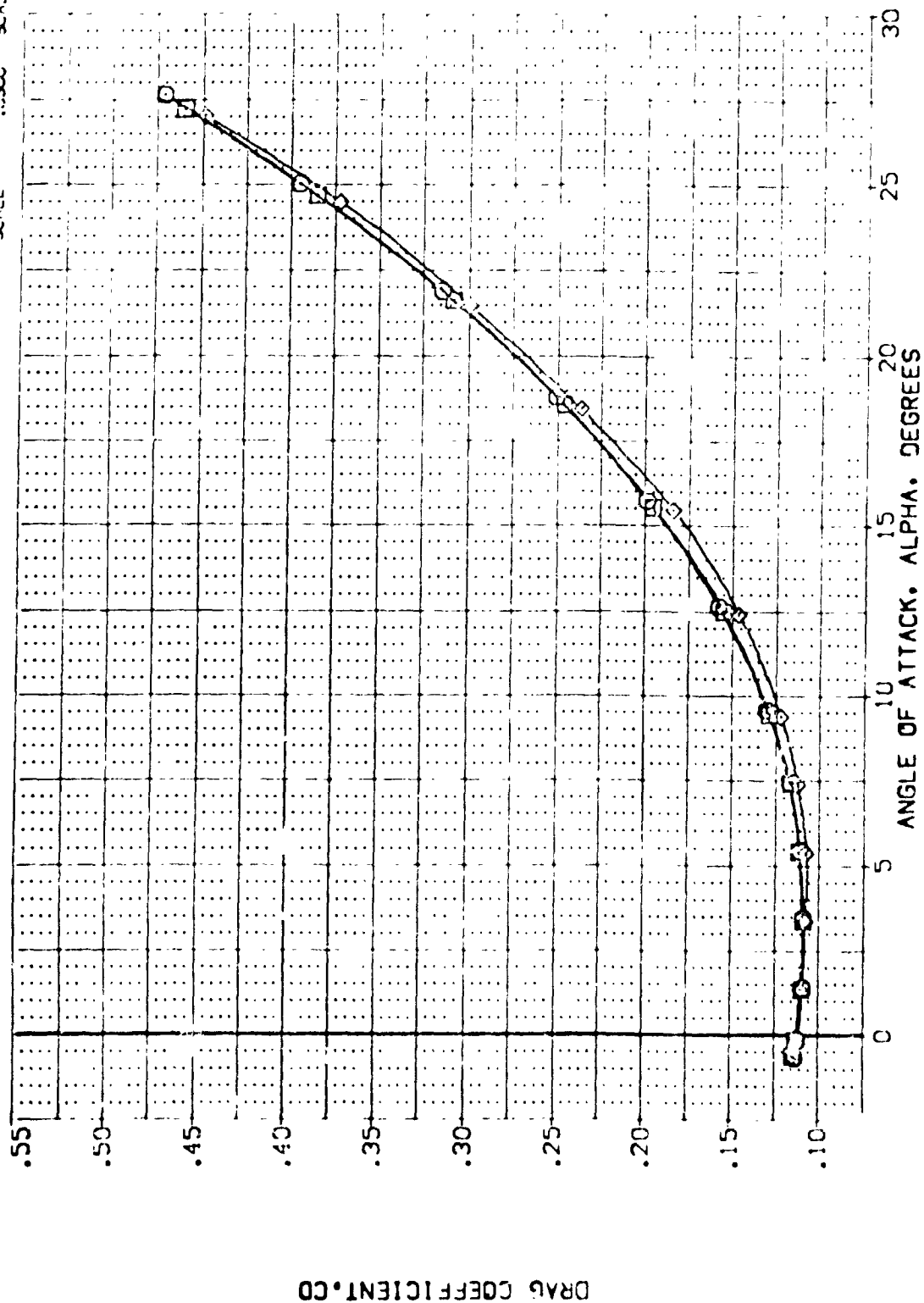


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AIL/BN	BOF/LAP	SPODBK	REFERENCE INFORMATION
[TELRI7]	ARC 87-747 CAS3C B C M F V	3.240	.000	.000	55.000	SREF 2.4210 SG.F
[TELRI6]	ARC 87-747 CAS3C B C M F V	.720	.000	.000	55.000	LREF 14.2440
[TELRI5]	ARC 87-747 CAS3C B C M F V	1.740	.000	.000	55.000	BREF 28.1004
						XREF 32.3010
						YREF .0000
						ZREF 11.2600
						SCALE .0300

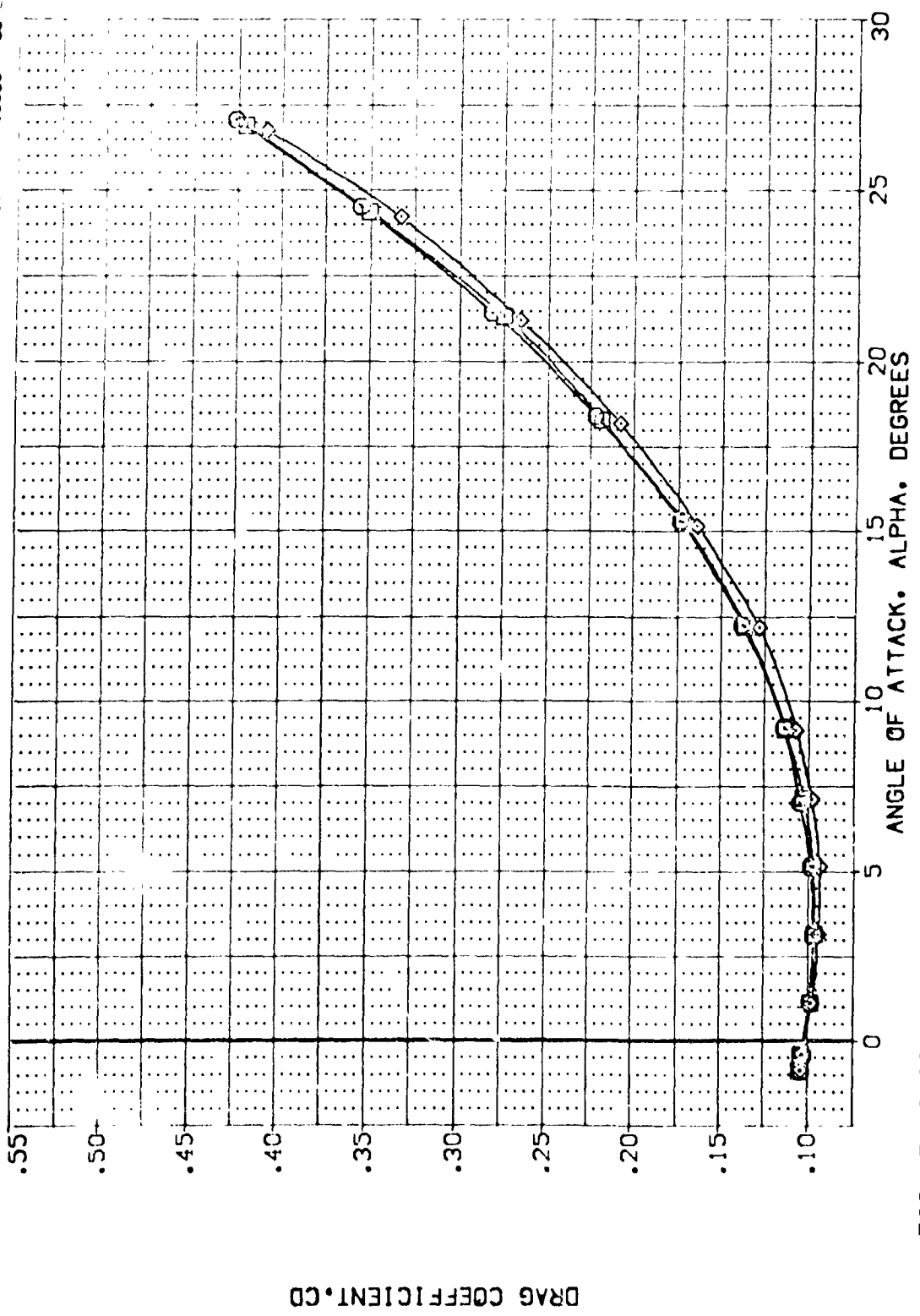


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(CMACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AILRON	BDF LAP	SPOBRK	REFERENCE INFORMATION
[*]ELR(7)	ARC 87-747 OAS3C B C M F V	3.240	.000	.000	55.000	SREF 2.1210 SQ.FT.
[*]ELR(6)	ARC 87-747 OAS3C B C M F V	1.750	.000	.000	55.000	LREF 14.2440
[*]ELR(5)	ARC 87-747 OAS3C B C M F V		.000	.000	55.000	BREF 28.1004
						AM300 32.3010
						VM300 .0000
						W300 7400
						SCALE 11.3300
						SCALE

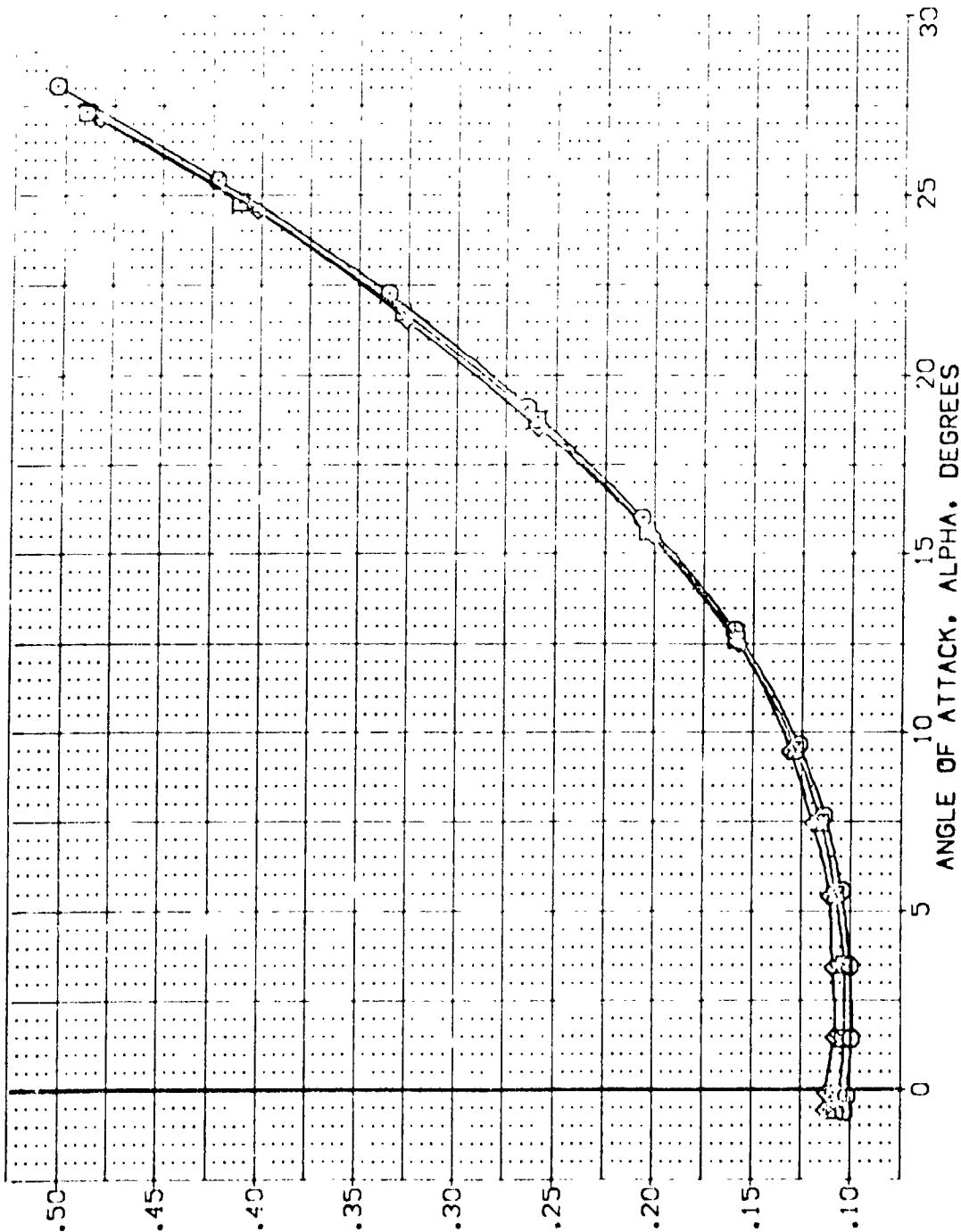


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONF IGURATION DESCRIPTION	RV/L	ALL/ON	BOF LAP	SPDRK	REFERENCE INFORMATION
[TELR:7]	ARC 87-747 D453C B C M F V1	3.240	.000	.000	55.000	SREF 2.4210
[TELR:6]	ARC 87-747 D453C B C M F V1	.750	.000	.000	55.000	LREF 14.2440
[TELR:5]	ARC 87-747 D453C B C M F V1	1.740	.000	.000	55.000	BREF 28.1004
						XREF 32.3010
						YREF 0.0000
						ZREF 11.2500
						SCALE 10.000

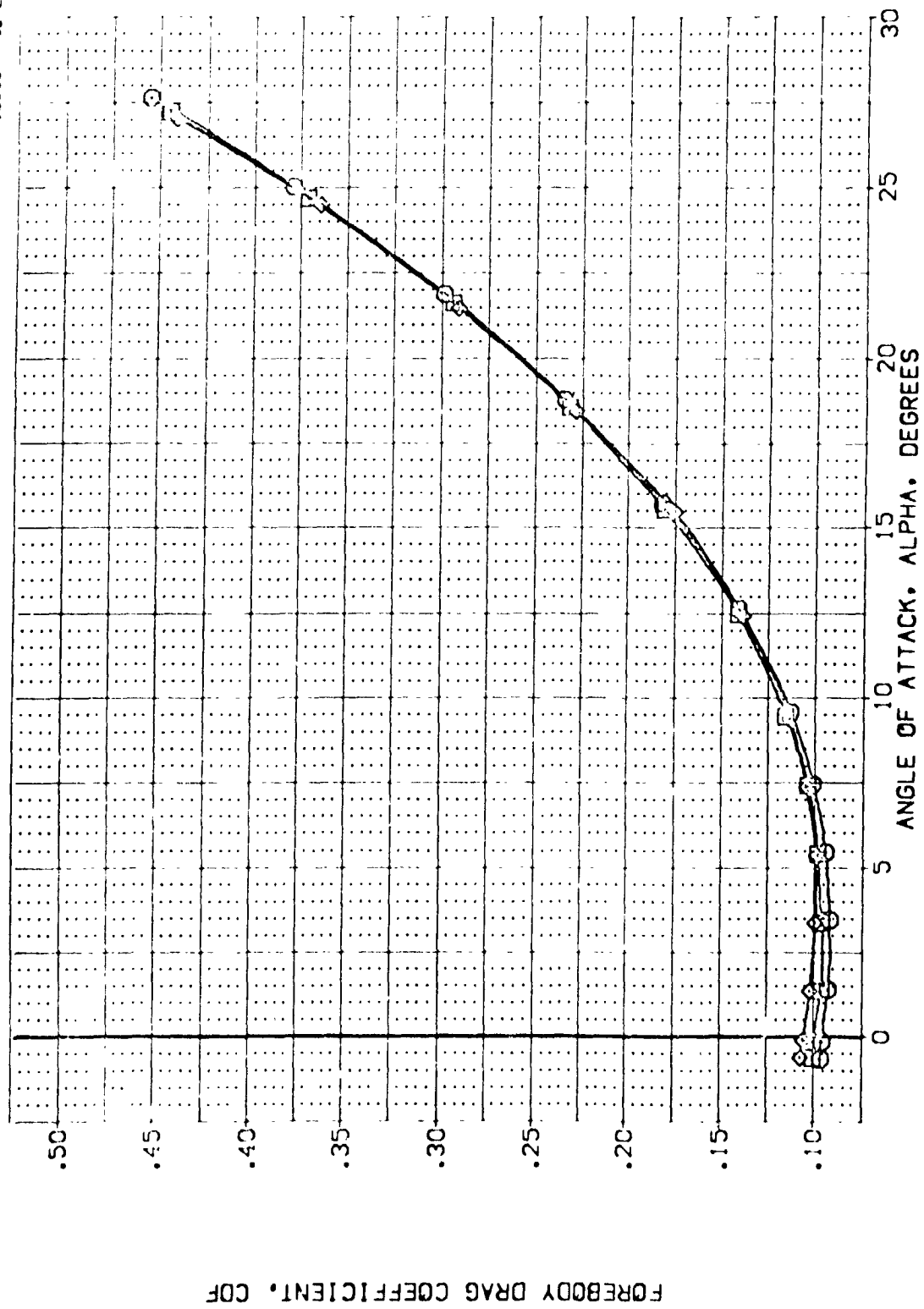


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00

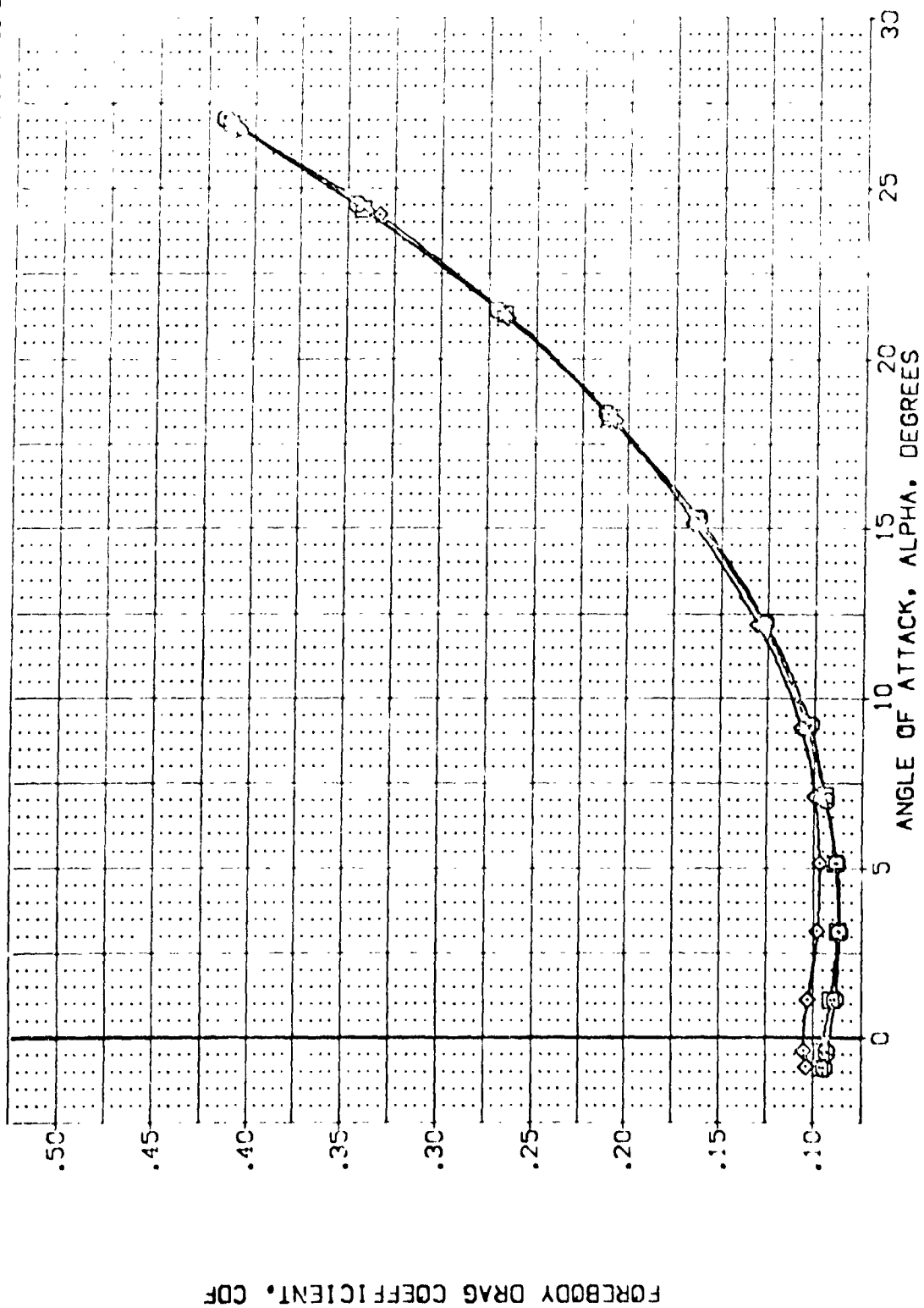
[illegible]

FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

$$[C]_{MACH} = 3.50$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AIL/RON	BO/LAP	SP/BRK	REFERENCE INFORMATION
[TEL:7]	ARC 87-747 DA53C B C M F V	3.240	.000	.000	55.000	SREF 2.4210 SCALE
[TEL:6]	ARC 87-747 DA53C B C M F V	1.750	.000	.000	55.000	LREF 14.2460
[TEL:5]	ARC 87-747 DA53C B C M F V	1.740	.000	.000	55.000	BREF 28.1004
						XREF 37.3010
						YREF 11.0000
						ZREF 11.2500
						SCALE 1.0000

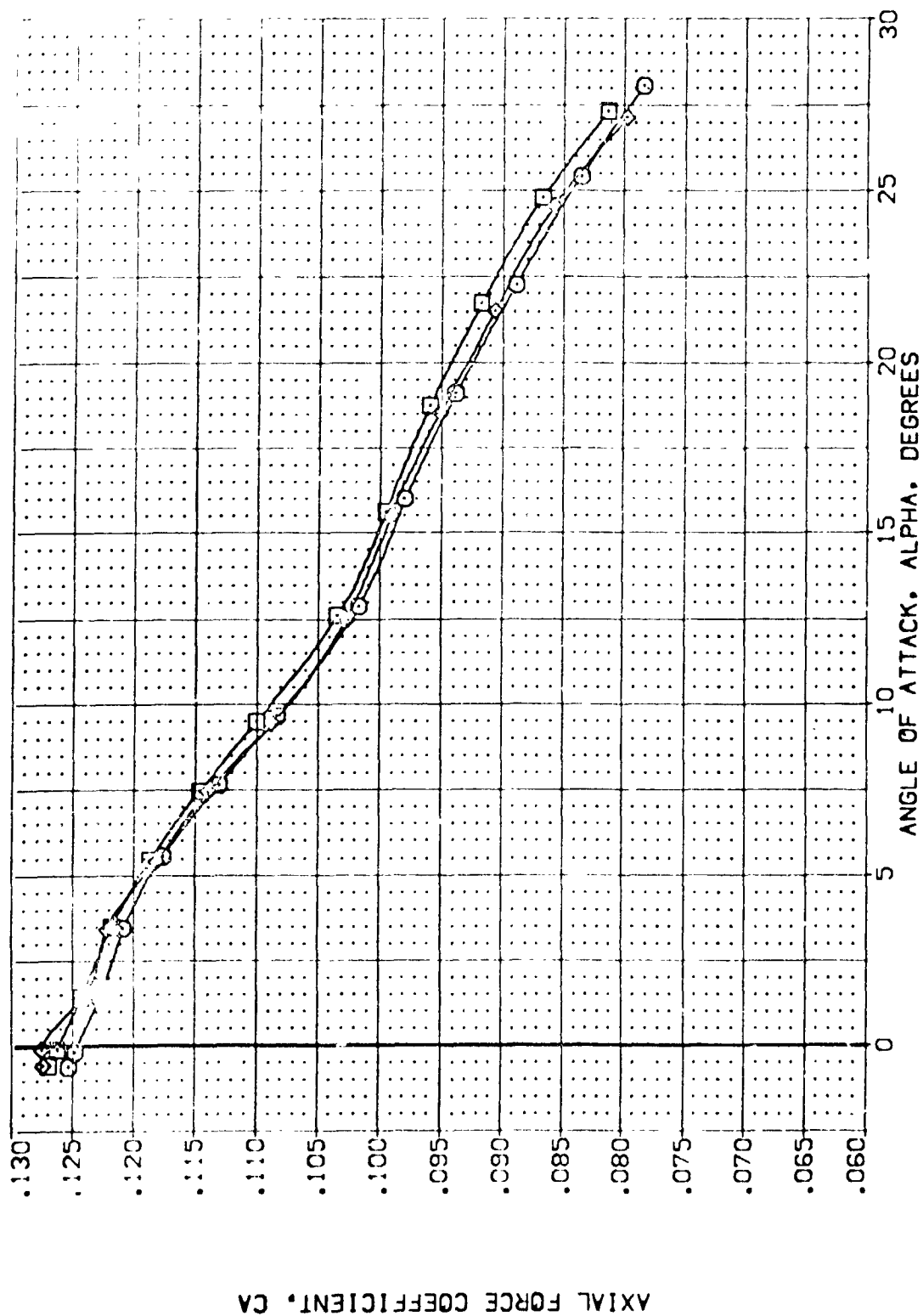


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	ALLRON	BDF LAP	SPDBRK	REFERENCE INFORMATION
(TELRI7)	ARC 87-747 OAS3C B C M F VI V	3.240	.000	.000	55.000	SREF 2.4210 SQ.FT.
(TELRI6)	ARC 87-747 OAS3C B C M F VI V	1.750	.000	.000	55.000	LREF 14.2440
(TELRI5)	ARC 87-747 OAS3C B C M F VI V	1.740	.000	.000	55.000	BREF 28.1004
						XREF 32.3010
						YREF .0000
						ZREF 11.2500
						SCALE .0300

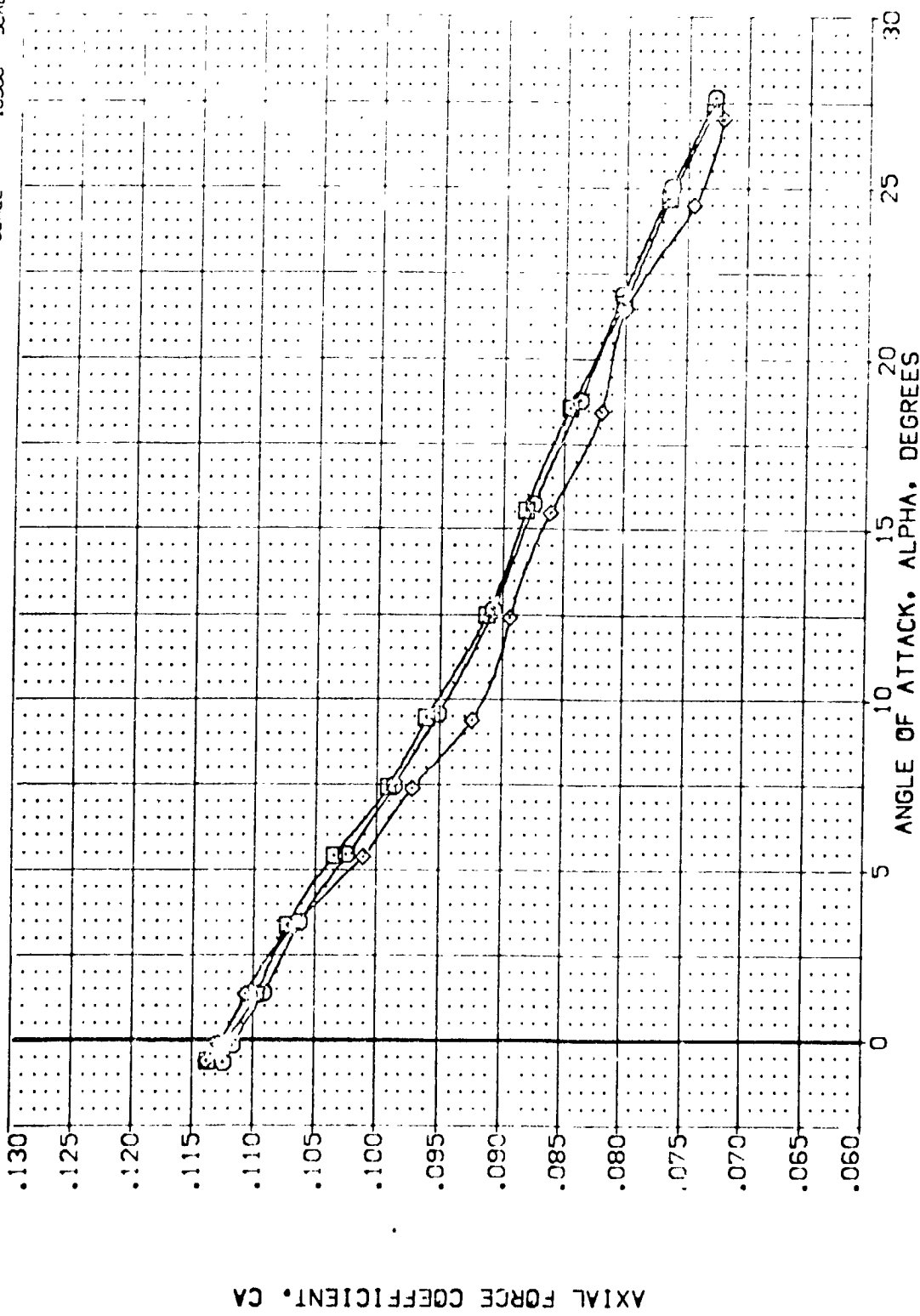
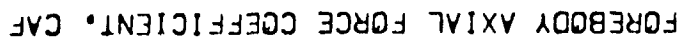


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00



CONFIGURATION	DESCRIPTION	HIGH	LOW
ARC 87-747	0A53C B C M F VI	RV/L	RV/L
ARC 87-747	0A53C B C M F VI	NOM.	RV/L
ARC 87-747	0A53C B C M F VI	LOW	RV/L


$$C(A)_{MACH} = 2.50$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	ALLRON	BOFLAP	SPDRK	REFERENCE INFORMATION
(TEUR:7)	ARC 87-747 OAS3C B C M F V	3.240	.000	.000	55.000	SREF 2.4210 SQ.FT.
(TEUR:6)	ARC 87-747 OAS3C B C M F V	.750	.000	.000	55.000	LREF 14.2440
(TEUR:5)	ARC 87-747 OAS3C B C M F V	1.740	.000	.000	55.000	BREF 26.1004
						XMRP 32.3010
						ZMRP .0000
						SCALE 11.2500
						SCALE .0300

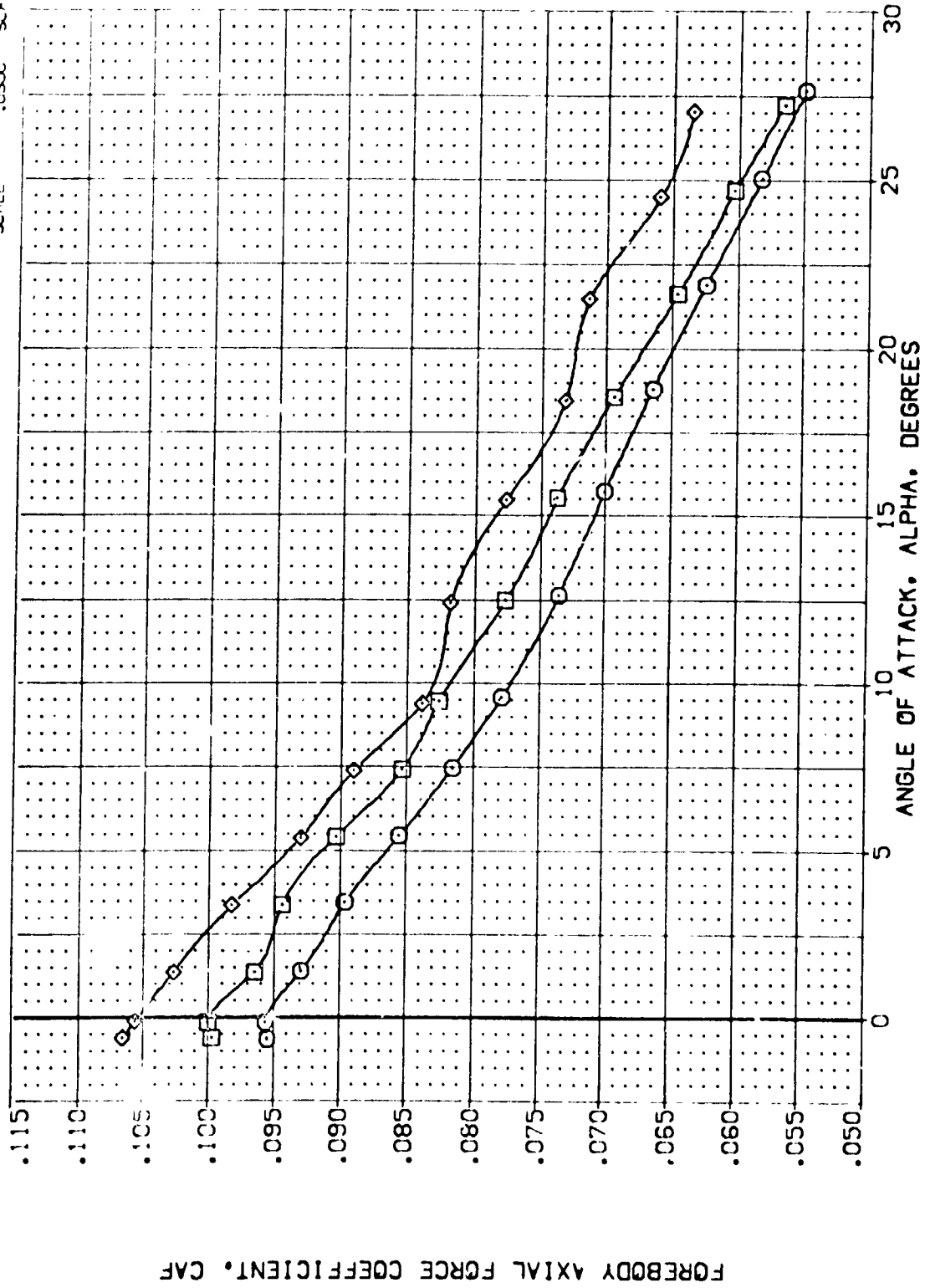
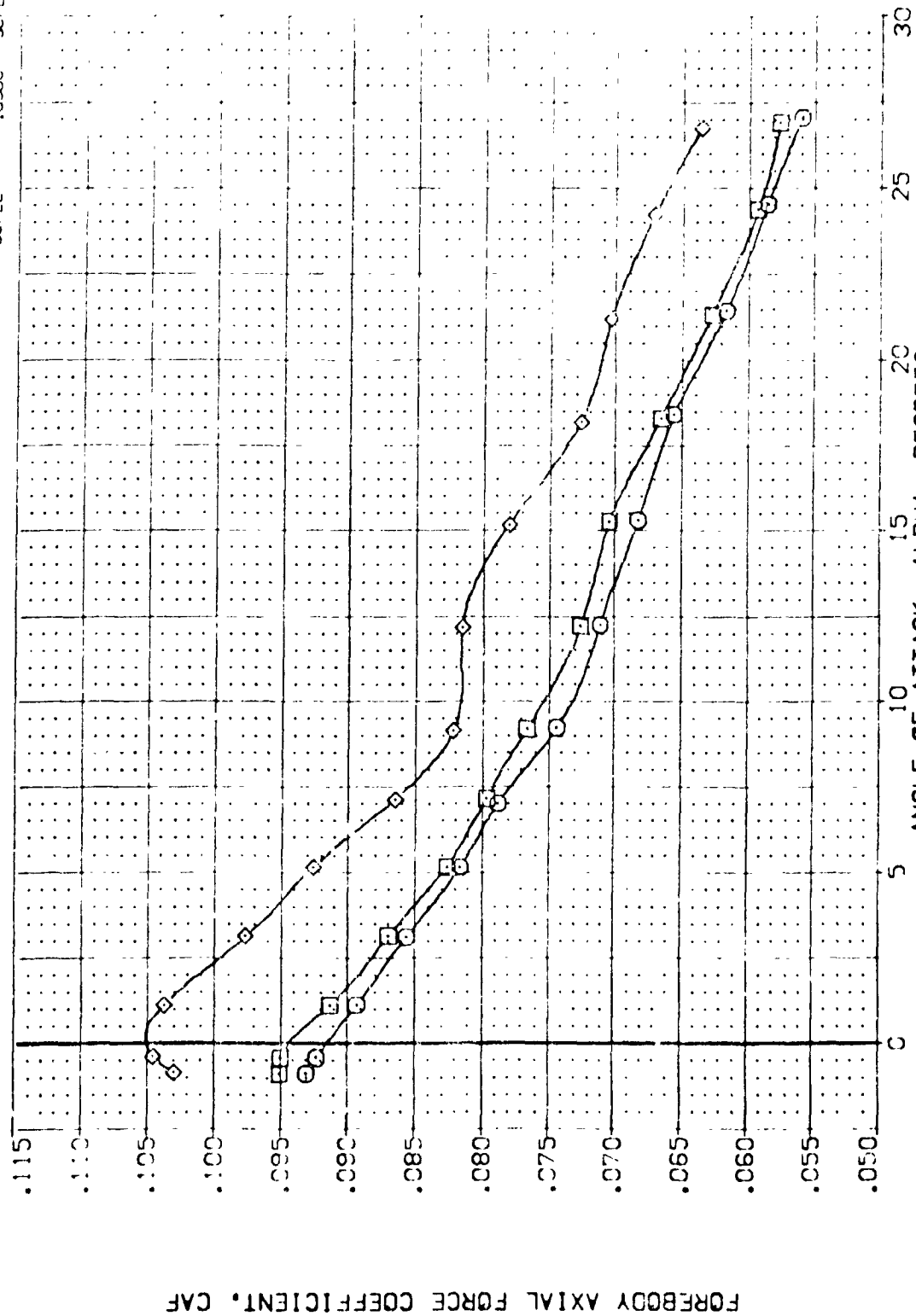


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[*ELR(7)]	ARC 87-747 OAS3C B C M F V1	3.240	.000	.000	55.000	SREF 2.4210
[*ELR(6)]	ARC 87-747 OAS3C B C M F V1	1.750	.000	.000	55.000	LREF 14.2440
[*ELR(5)]	ARC 87-747 OAS3C B C M F V1	1.740	.000	.000	55.000	BREF 20.1000
						XMPP 32.3010
						YMPP .0000
						ZMPP 11.2500
						SCALE .0000



FOREBODY AXIAL FORCE COEFFICIENT, CAF

FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	ATL/RN	BD/LAP	SP/BRK	REFERENCE INFORMATION
[TEL R:7]	ARC 87-747 OAS3C B C M F V1	3.240	.000	.000	55.000	SREF 2.4210 SQ.FT.
[TEL R:6]	ARC 87-747 OAS3C B C M F V1	.750	.000	.000	55.000	LREF 14.2440 IN.
[TEL R:5]	ARC 87-747 OAS3C B C M F V1	1.740	.000	.000	55.000	BREF 28.1004 IN.
						AM-24 37.3010 IN.
						VM-24 .0000 IN.
						ZMRP 11.2500 IN.
						SCALE .0300

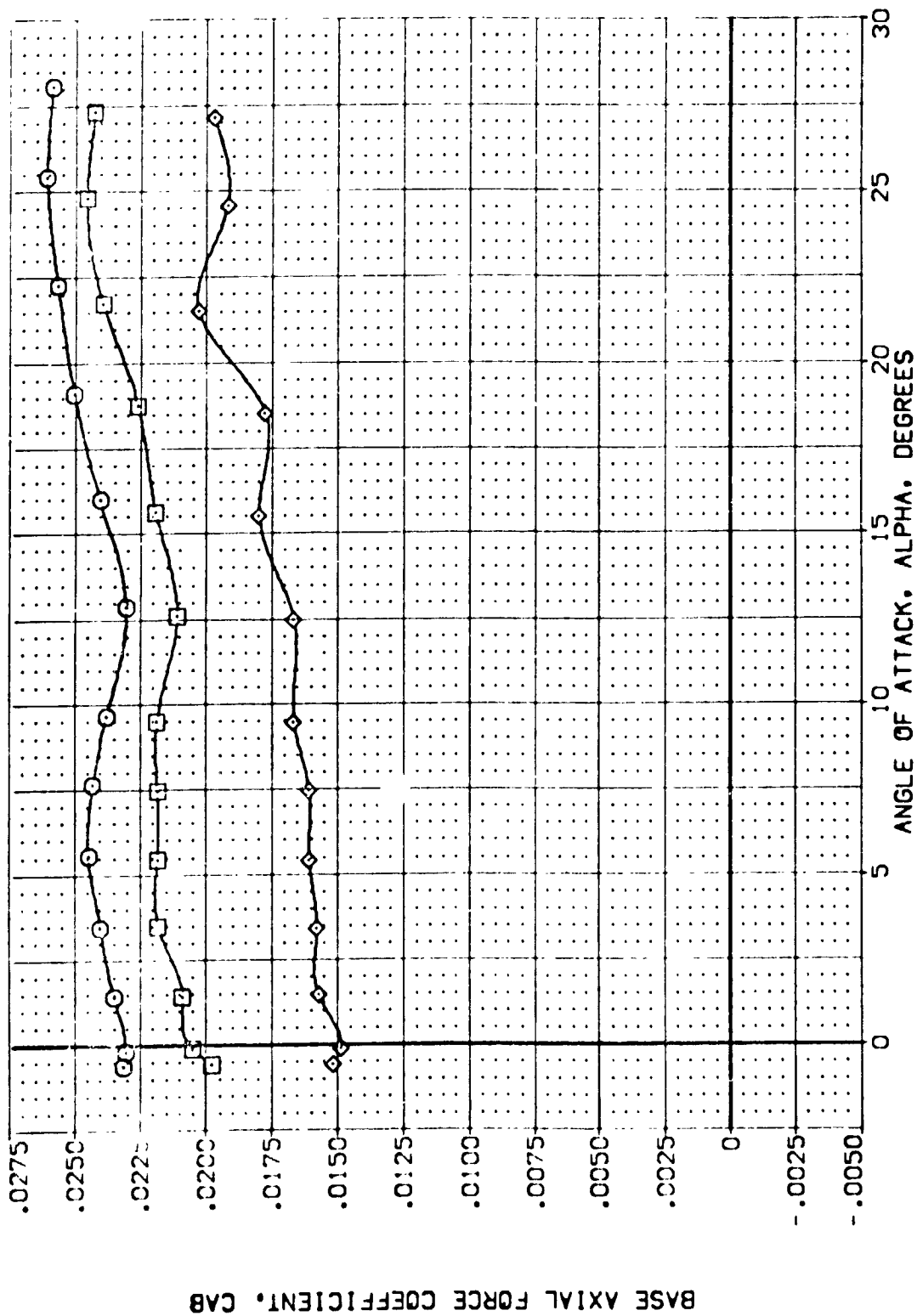


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS  
(A)MACH = 2.50



REFERENCE INFORMATION	
SOURCE	2-4210 SQ. FT.
REF	14,244
REF	28,104
REF	32,300
REF	2000
REF	11,2500
REF	1,2500
SCALE	SCALE


$$((C)MACH = 3.50$$



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	HIGH- R/V	AILRON	BD/LAP	SPOBRK	REFERENCE INFORMATION
TEUR(7)	ARC 87-747 GAS5C B C H F VI	3.240	.000	.000	55.000	SREF 2.4210 SQ.FT.
TEUR(6)	ARC 87-747 GAS5C B C H F VI	1.750	.000	.000	55.000	LREF 14.2440
TEUR(5)	ARC 87-747 GAS5C B C H F VI	1.740	.000	.000	55.000	BREF 28.1004
						VMRO 37.3010
						VMRO 11.0000
						ZMRO 11.0000
						SCALE 10300

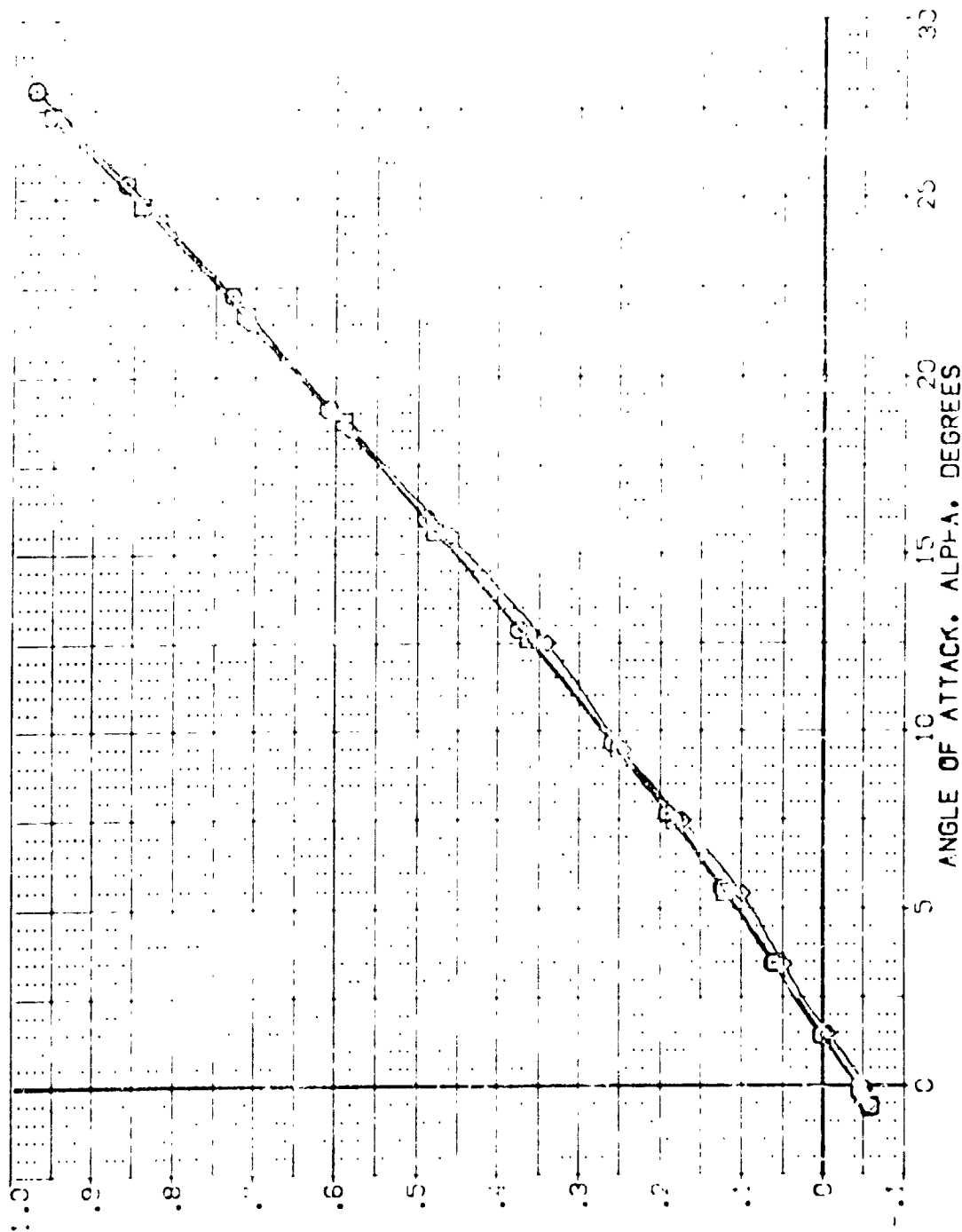


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AIRLON	BOLAP	SPOBRK	REFERENCE INFORMATION
TELRI7	ARC 87-747 OASXC B C M E V	3.240	.000	.000	55.000	STEF 2.4210 SC.FT.
TELRI6	ARC 87-747 OASXC B C M E V	1.750	.000	.000	55.000	LKEF 14.2440
TELRI5	ARC 87-747 OASXC B C M E V	1.740	.000	.000	55.000	BRF 26.1004
						XREF 32.3010
						YREF .0000
						ZREF 11.2500
						SCALE .0000

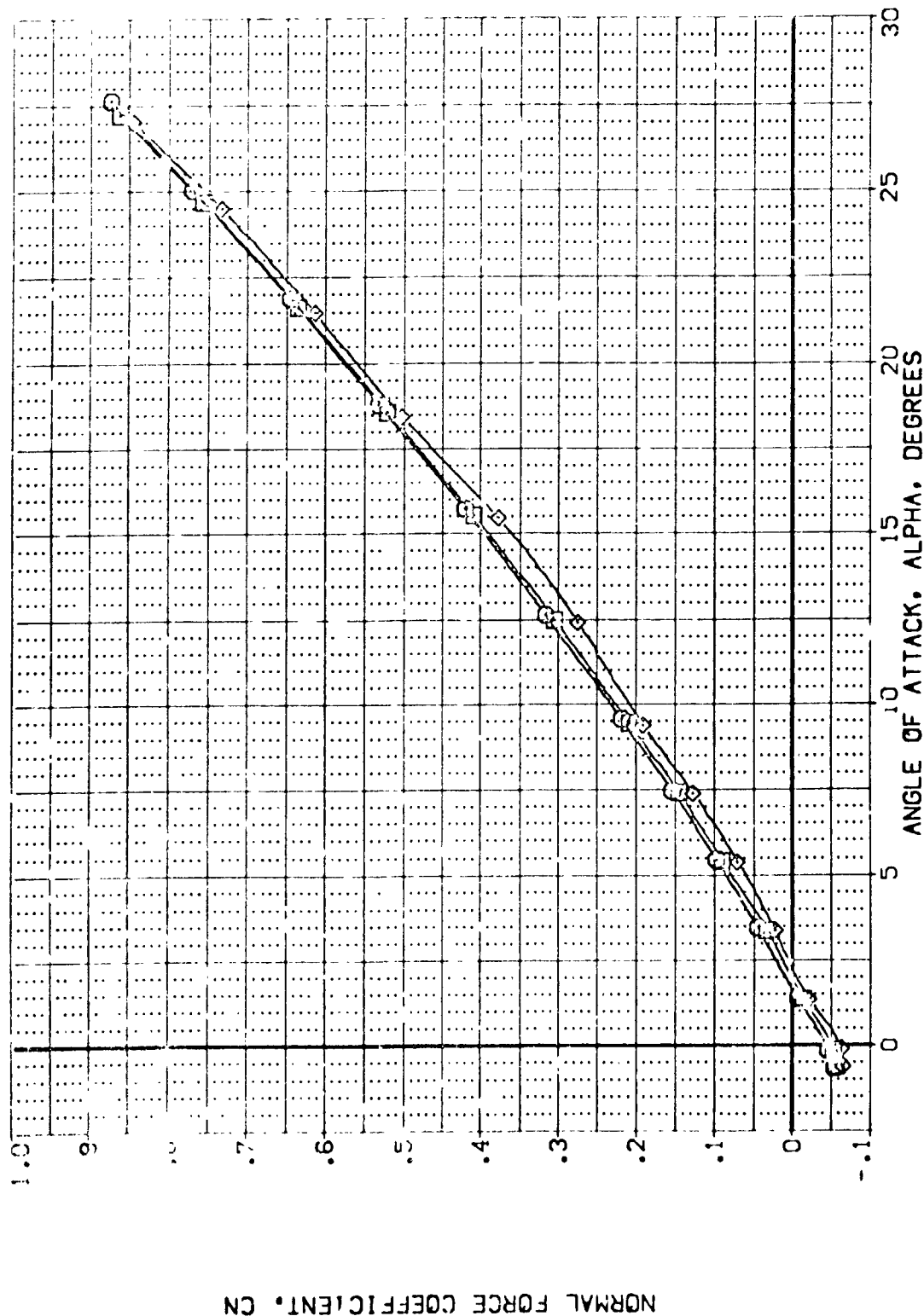


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AIL/RON	BO/LAP	SP/DRK	REFERENCE INFORMATION
ARC 87-747	DAS3C B C M F V I V	3.240	.000	.000	55.000	SREF 2.4210 SQ.FT.
TELRI7	ARC 87-747	1.750	.000	.000	55.000	LRREF 14.2440
TELRI6	ARC 87-747	1.740	.000	.000	55.000	BRREF 18.1004
TELRI5						XMRP 32.3018
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

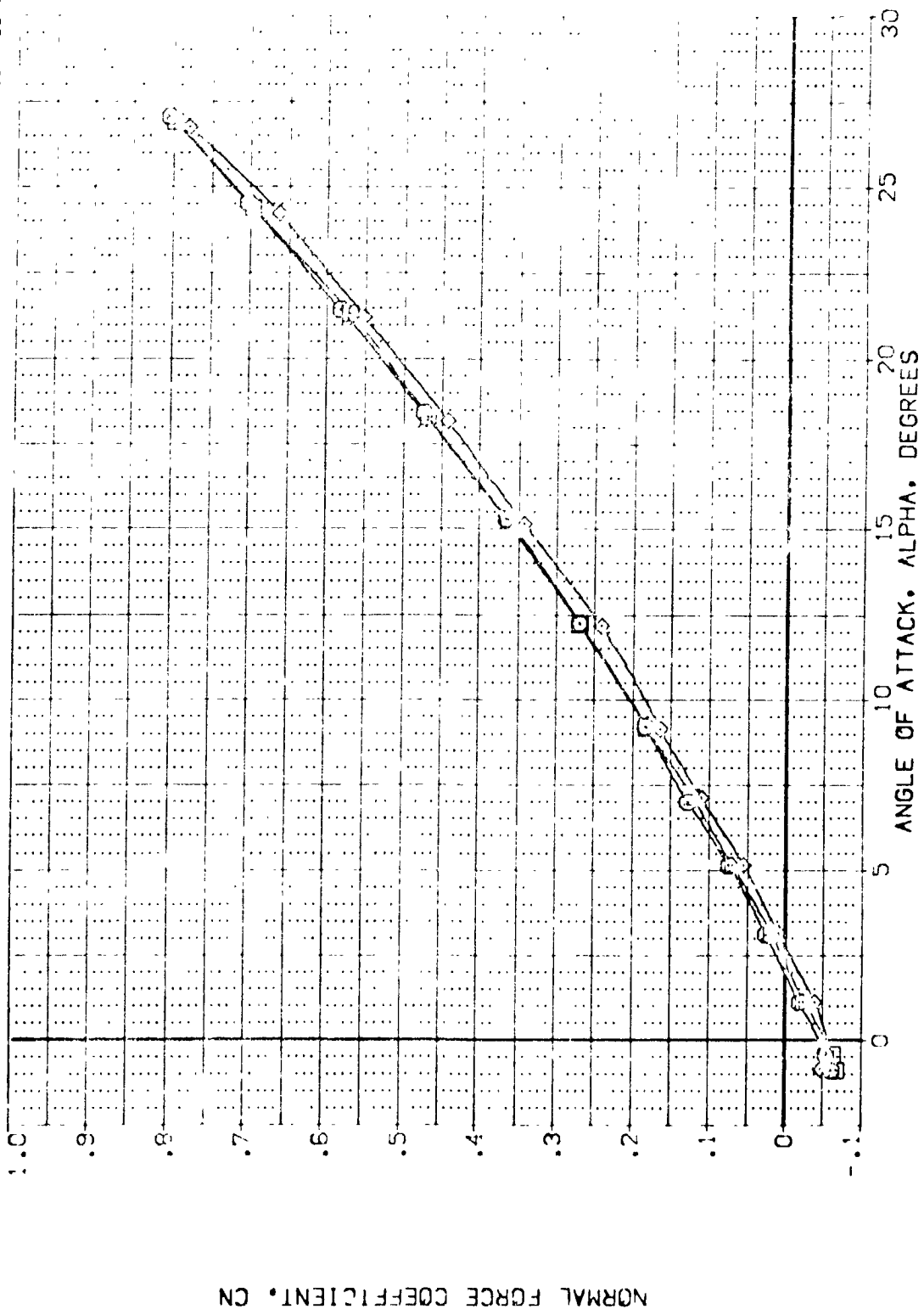


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AILRON	BDF LAP	SPOBRK	REFERENCE INFORMATION
(TELUR:7)	ARC 87-747 OAS3C B C M F V I V	3.240	.000	.000	55.000	SREF 2.4210 SQ.F.T.
(TELUR:6)	ARC 87-747 OAS3C B C M F V I V	.750	.000	.000	55.000	LREF 14.2440 IN.
(TELUR:5)	ARC 87-747 OAS3C B C M F V I V	1.740	.000	.000	55.000	BREF 28.1004 IN.
						XMRP 32.3010 IN.
						YMRP .0000 IN.
						ZMRP 11.2500 IN.
						SCALE .0300

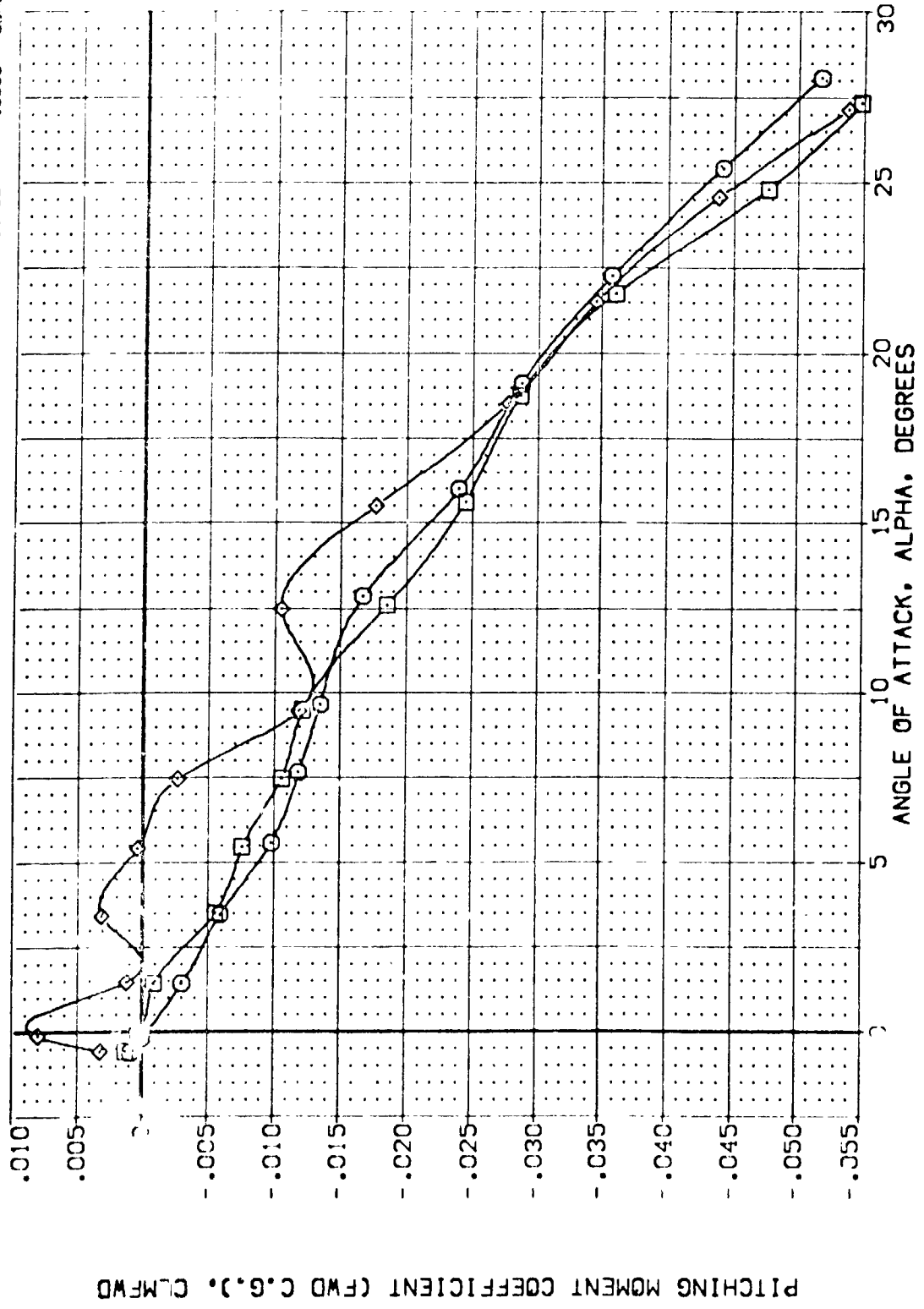
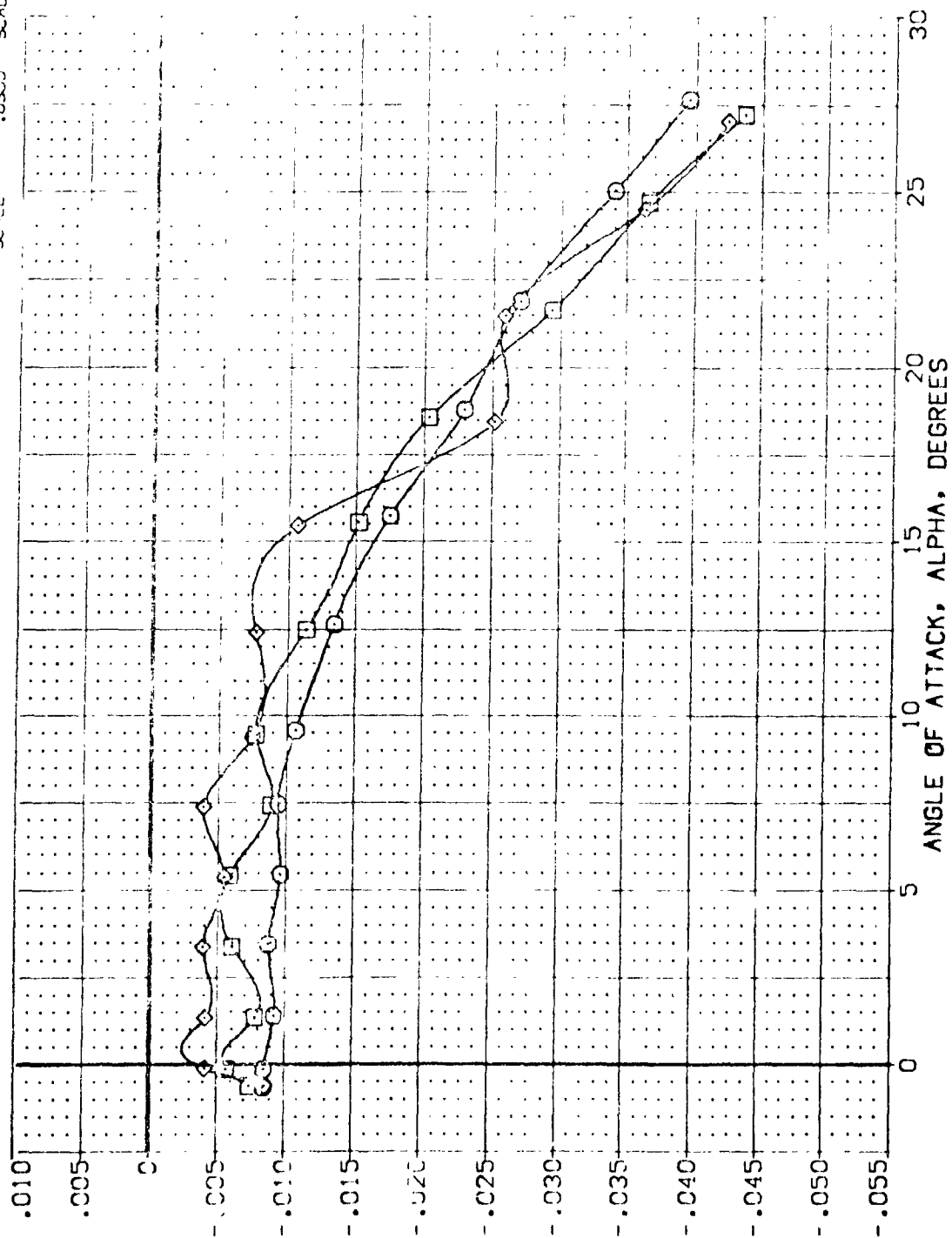


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	HIGH RV/L	LOW RV/L	RV/L	AIL/RON	BO/LAP	SP/BRK	REFERENCE INFORMATION
(TEL17)	ARC 87-747 D453C B C M F VI	V	V	3.240	.000	.000	55.000	SREF 2.4210 SQ.FT.
(TEL16)	ARC 87-747 D453C B C M F VI	V	V	.750	.000	.000	55.000	LREF 14.2443 IN.
(TEL15)	ARC 87-747 D453C B C M F VI	V	V	1.740	.000	.000	55.000	BREF 28.1004 IN.
								XREF 32.3013 IN.
								YREF .0000 IN.
								ZREF 11.7500 IN.
								SCALE .0300



PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFW

FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 TELR77) ARC 87-747 CASC B C M F V  
 TELR6) ARC 87-747 CASC B C M F V  
 TELR15) ARC 87-747 CASC B C M F V

HIGH RN/L  
 NOT RN/L  
 LOW RN/L

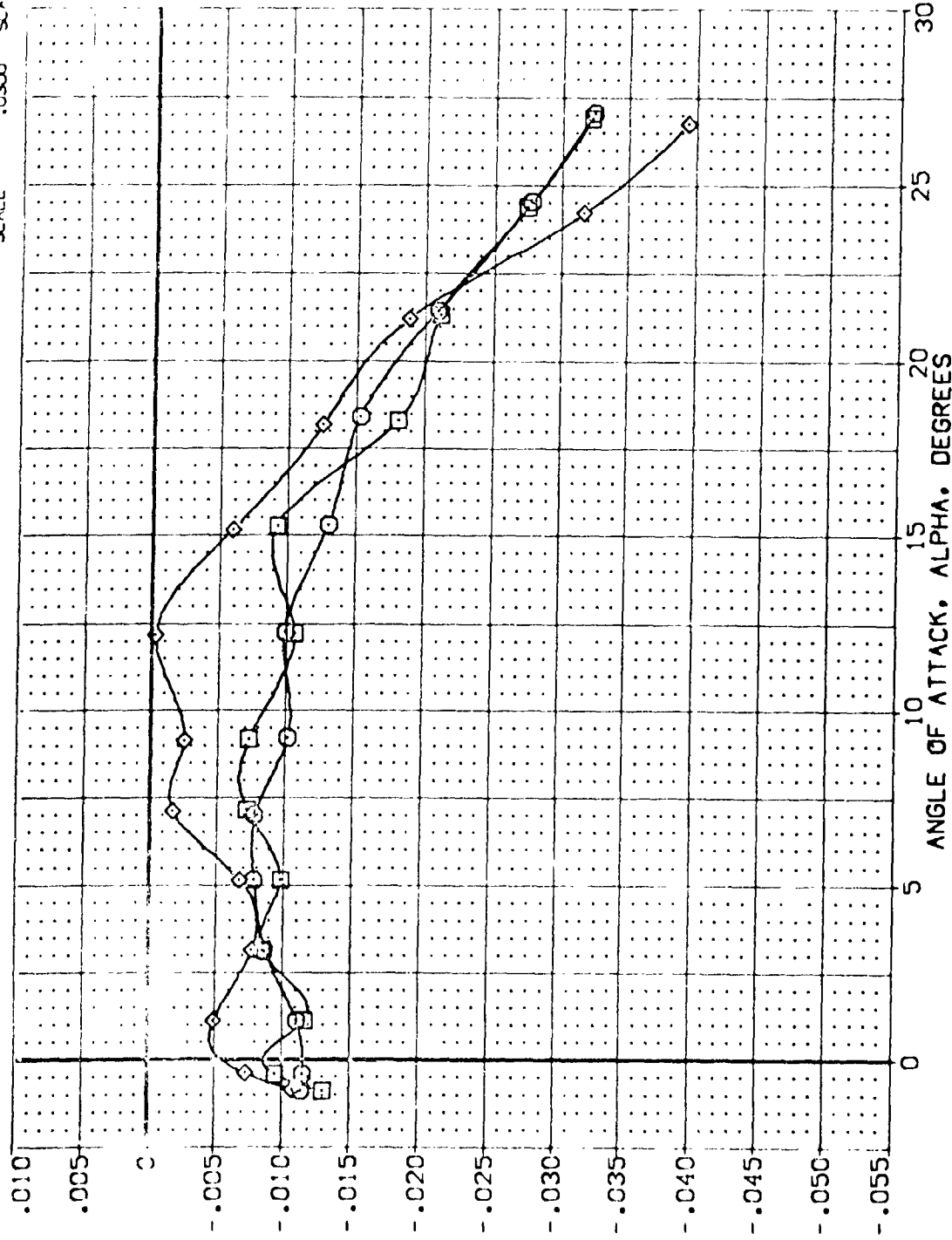
RN/L 3.240  
 1.750  
 1.740

AIRLON .000  
 .000  
 .000

BOFLAP .000  
 .000  
 .000

SPOBRK 55.000  
 55.000  
 55.000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.2440 IN.  
 BREF 28.1004 IN.  
 XMRP 32.3010 IN.  
 YMRP .0000 IN.  
 ZMRP 11.2500 IN.  
 SCALE .0300



PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFW

FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    RV/L    ALL/REV    BDF/LAP    SPOB/RK    REFERENCE INFORMATION

(TELRI7)	ARC 87-747 BAS3C B C M F VI V	3.240	.000	.000	55.000	SREF	2.4210	50.000
(TELRI6)	ARC 87-747 BAS3C B C M F VI V	.750	.000	.000	55.000	LREF	14.2440	50.000
(TELRI5)	ARC 87-747 BAS3C B C M F VI V	1.740	.000	.000	55.000	SREF	28.1004	50.000
						XMRP	32.3010	50.000
						YMRP	11.2500	50.000
						ZMRP	11.2500	50.000
						SCALE	11.2500	50.000

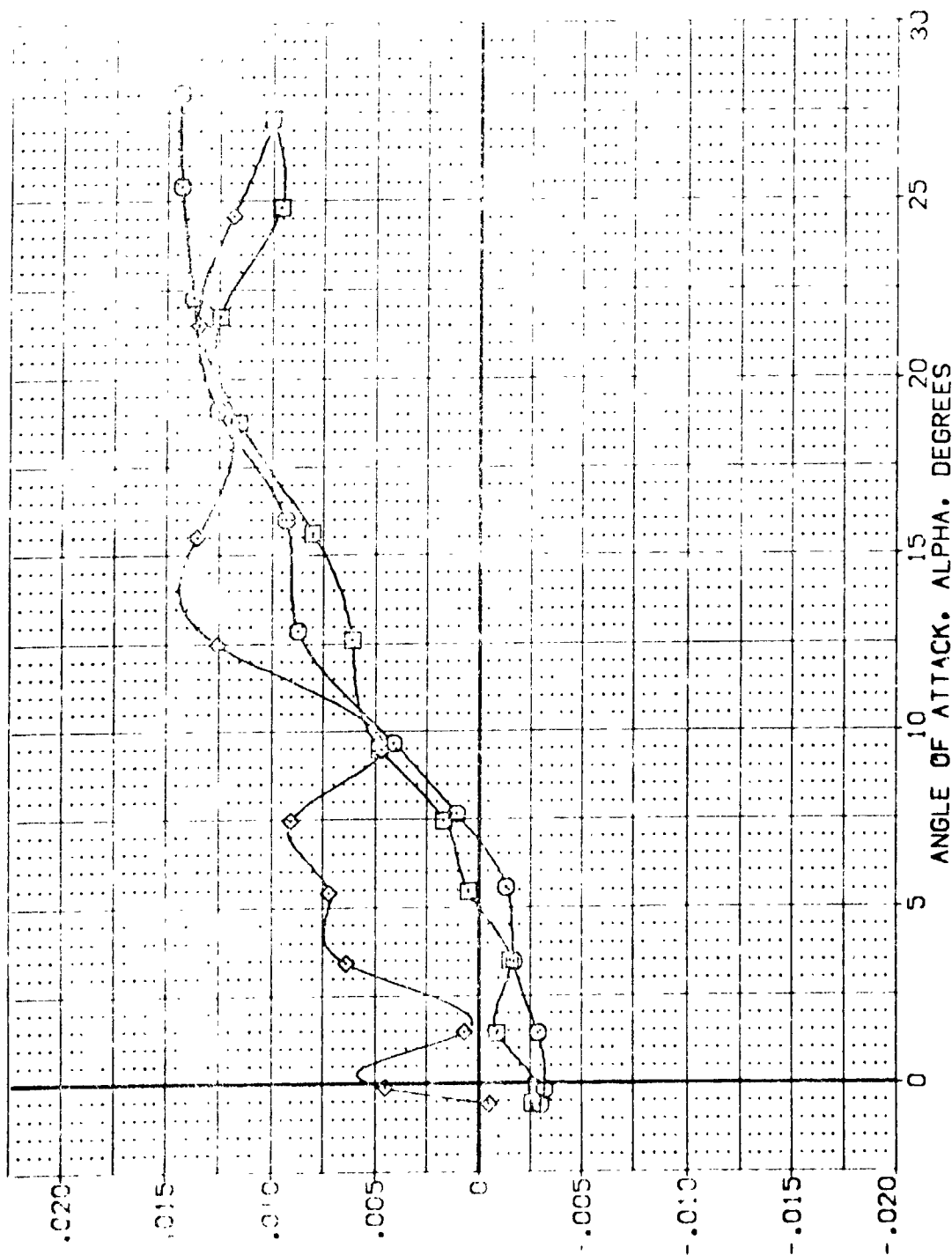


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	ALL/ON	BO/LAP	SPOBRK	REFERENCE INFORMATION
(TELRI7)	ARC 87-747 BASIC B C M F V	3.240	.000	.000	55.000	SREF 2.4210 SC.FT.
(TELRI6)	ARC 87-747 BASIC B C M F V	1.750	.000	.000	55.000	BREF 14.2440
(TELRI5)	ARC 87-747 BASIC B C M F V	1.740	.000	.000	55.000	XREF 28.1000
						YREF 32.3010
						ZREF .0000
						SCALE 11.2500
						SCALE 11.0300

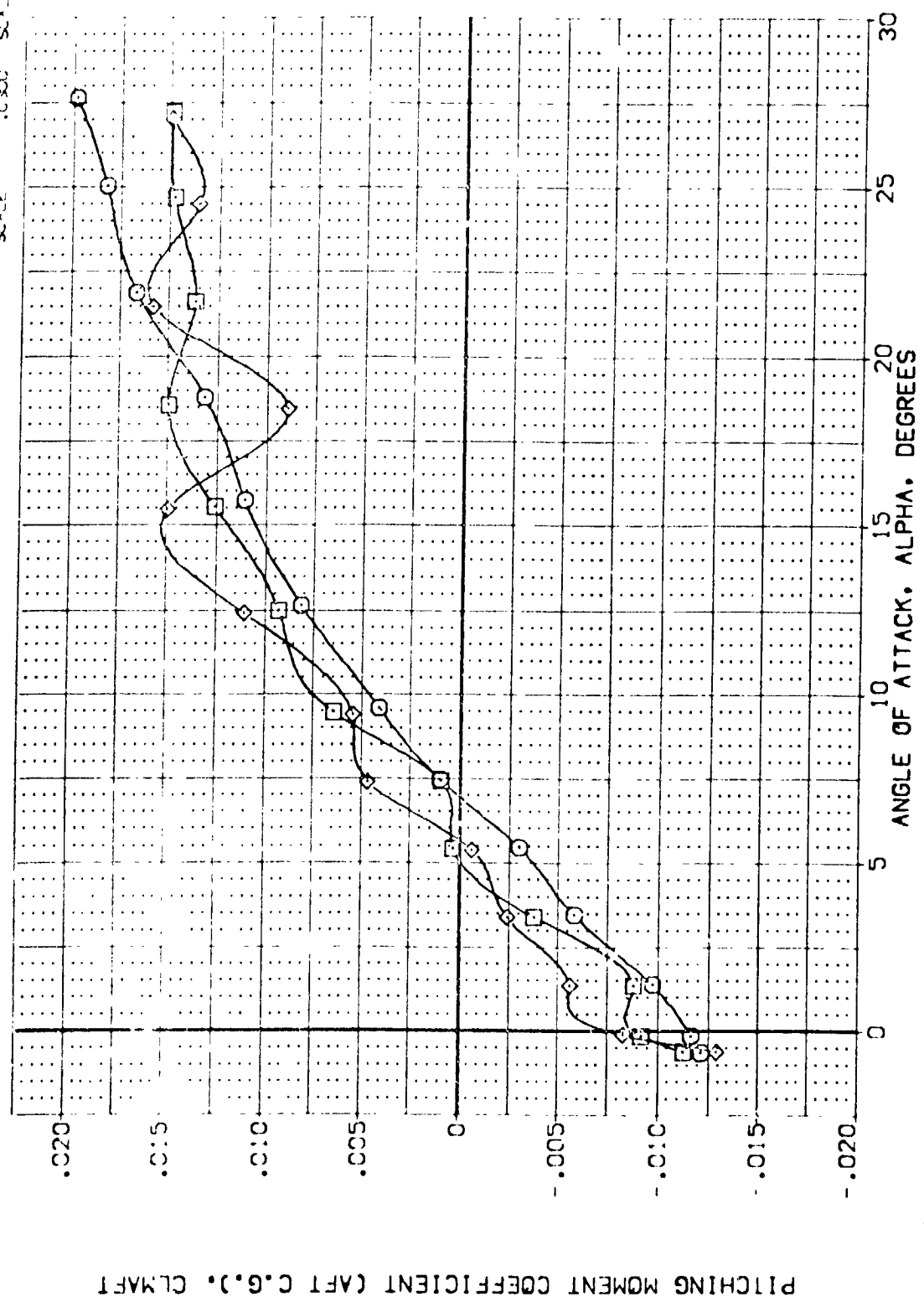


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RVL	AILRON	BDFLAP	SPOBRK	REFERENCE INFORMATION
TELRI7	ARC 87-747 DA53C B C M F V1	3.240	.000	.000	55.000	SREF 2.4210
TELRI6	ARC 87-747 DA53C B C M F V1	1.750	.000	.000	55.000	LREF 14.2140
TELRI5	ARC 87-747 DA53C B C M F V1	1.740	.000	.000	55.000	BREF 28.1004
						VMPO 32.3010
						ZMPO .0000
						SCALE 11.2500
						SCALE .0800

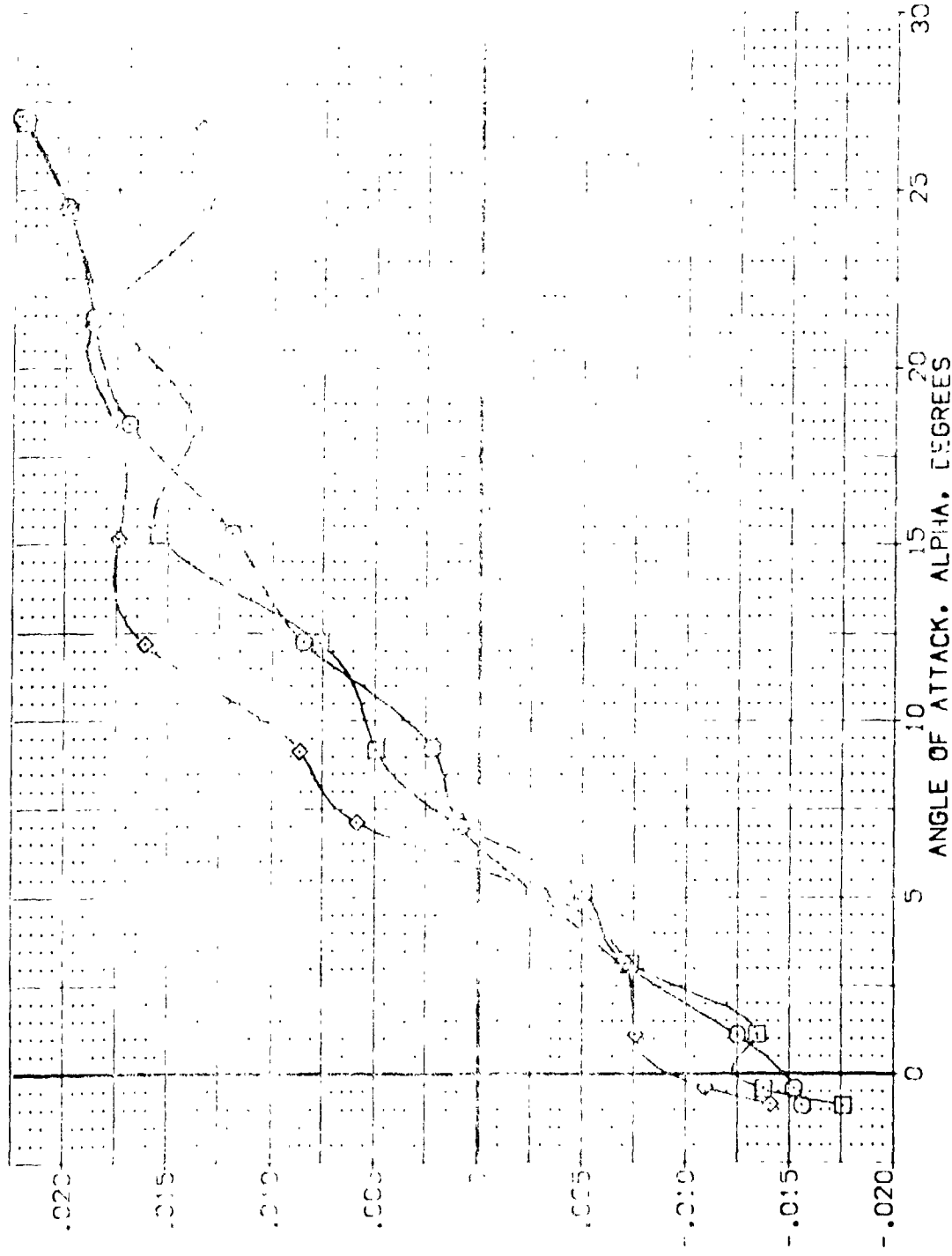
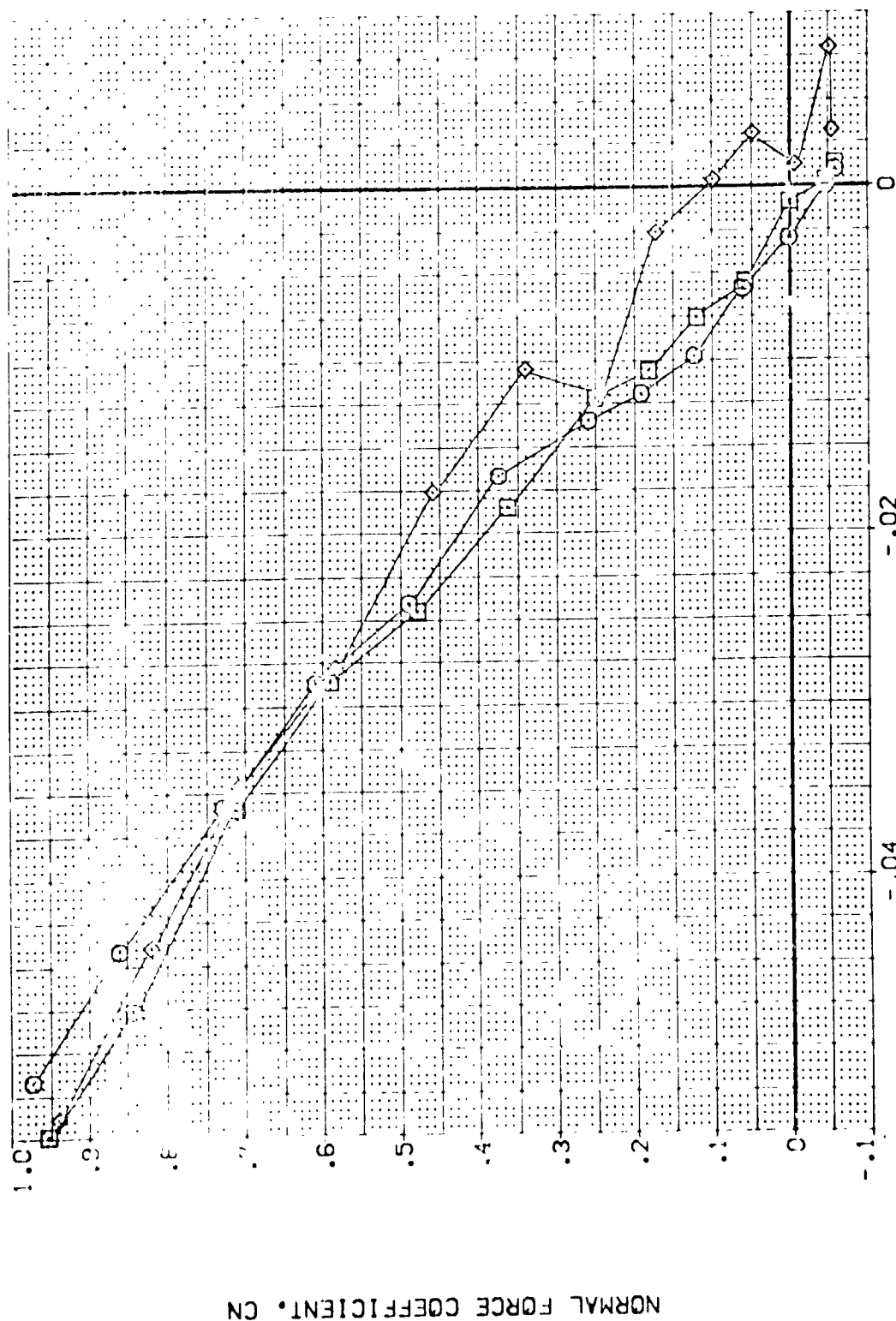


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(MACH = 3.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AILRON	EDFLAP	SPJSTRK	REFERENCE INFORMATION
TELRI:7)	ARC 87-747 GAS3C B C M F V)	3.740	.000	.000	55.000	SPEE 2.4210 SQ.FT.
TELRI:6)	ARC 87-747 GAS3C B C M F V)	1.750	.000	.000	55.000	LORE 14.2442
TELRI:5)	ARC 87-747 GAS3C B C M F V)	1.740	.000	.000	55.000	BRLE 28.1004
						YMRD 32.2010
						ZMRD 11.2500
						SCALE .0000

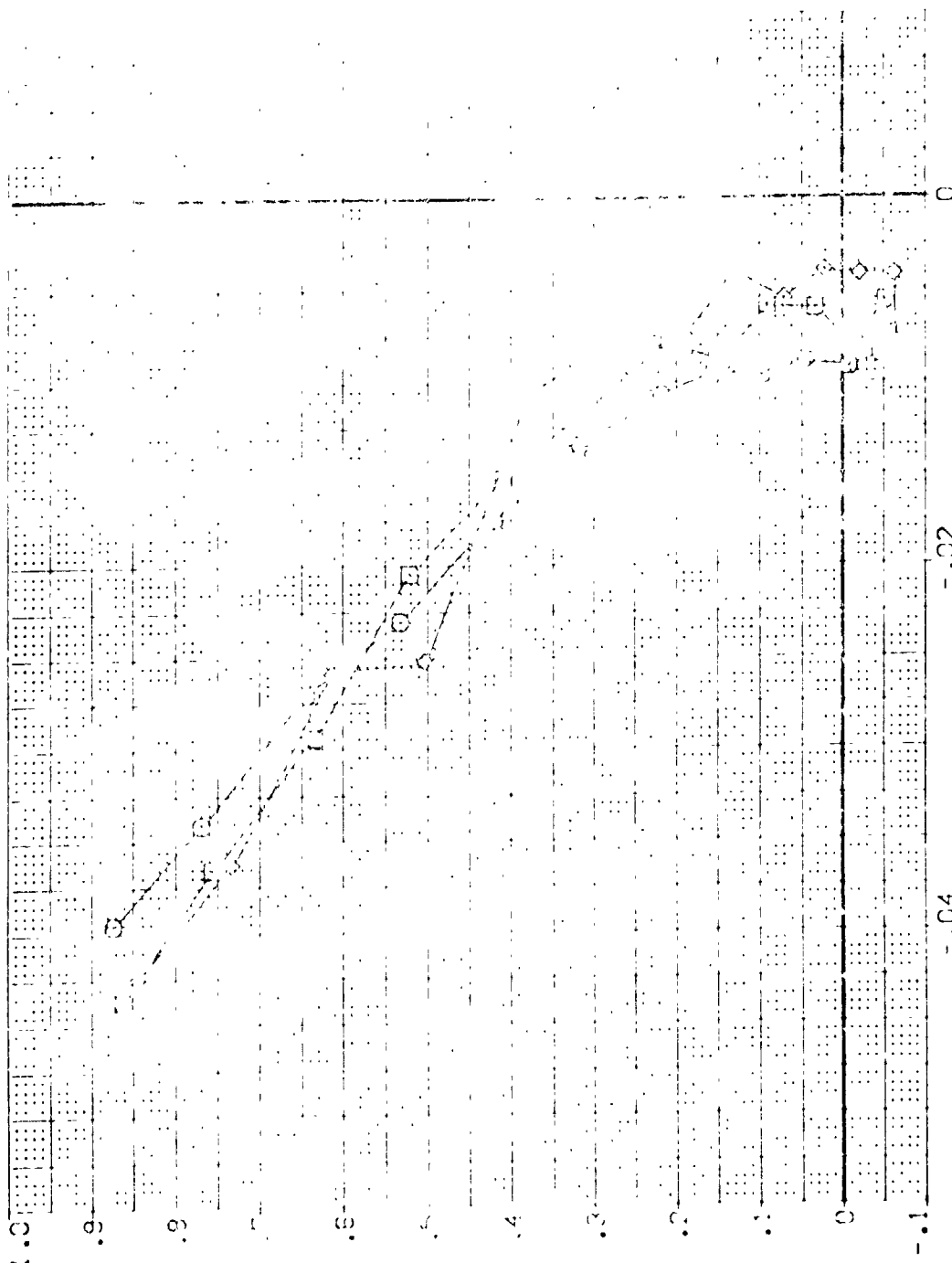


PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFWD

FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AILRON	BOFLAP	SP0BRK	REFERENCE INFORMATION
[TEL R17]	ARC 87-747 OAS3C B C M F VI V	3.240	.000	.000	55.000	SPREF 2.421C SC.FT.
[TEL R16]	ARC 87-747 OAS3C B C M F VI V	.750	.000	.000	55.000	LRREF 14.241C
[TEL R15]	ARC 87-747 OAS3C B C M F VI V	1.740	.000	.000	55.000	BRREF 28.304C
						XMREF 32.301C
						YMREF .0000C
						ZMREF 11.290C
						SCALE .0300C

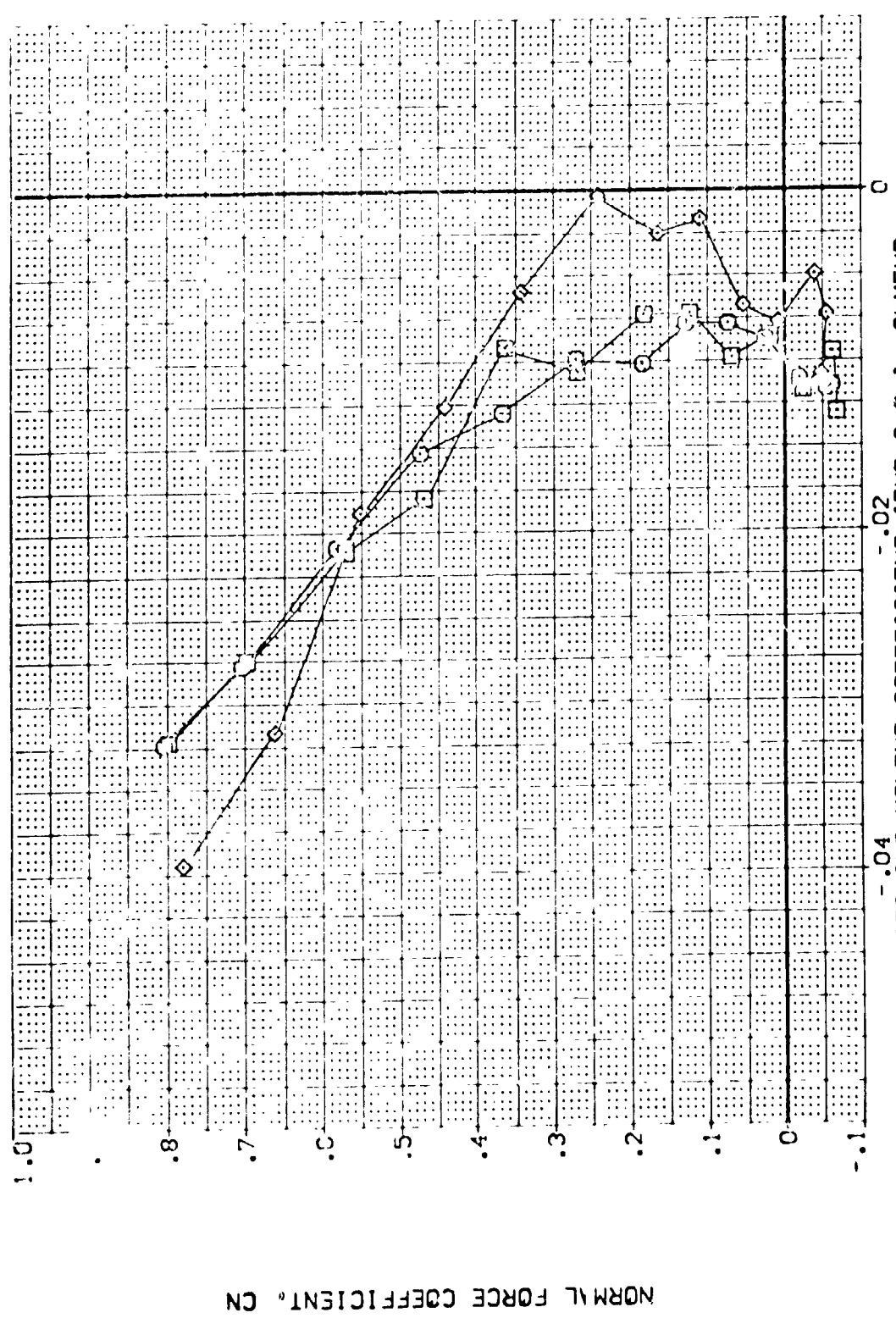


PITCHING MOMENT COEFFICIENT (FWD C.G.). CLMFW

FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AIRFOIL	BOE LAR	SPCLARK	REFERENCE INFORMATION
(TEL R 17)	ARC 87-747 CLASSIC B C M F VI	3.240	.000	.000	55.000	SREF 2.4210 SG.FY.
(TEL R 16)	ARC 87-747 CLASSIC B C M F VI	1.740	.000	.000	55.000	LREF 14.2440
(TEL R 15)	ARC 87-747 CLASSIC B C M F VI		.000	.000	55.000	SPREF 28.1004
						YREF 32.5000
						ZREF 11.2500
						SCALE 1.0300



PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFWD

FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(C)MACH = 3.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	ALLRON	BDY LAP	SPOBCK	REFERENCE INFORMATION
(TEL R:7)	ARC 87-747 OAS3C B C M F V I	3.240	.000	.000	55.000	SREF 2.4713 SC.FY.
(TEL R:6)	ARC 87-747 OAS3C B C M F V I	1.750	.000	.000	55.000	REF 14.2443
(TEL R:5)	ARC 87-747 OAS3C B C M F V I	1.740	.000	.000	55.000	REF 28.1004
						KV50 32.3000
						WV50 .0000
						WV50 11.2500
						SCALE .0000

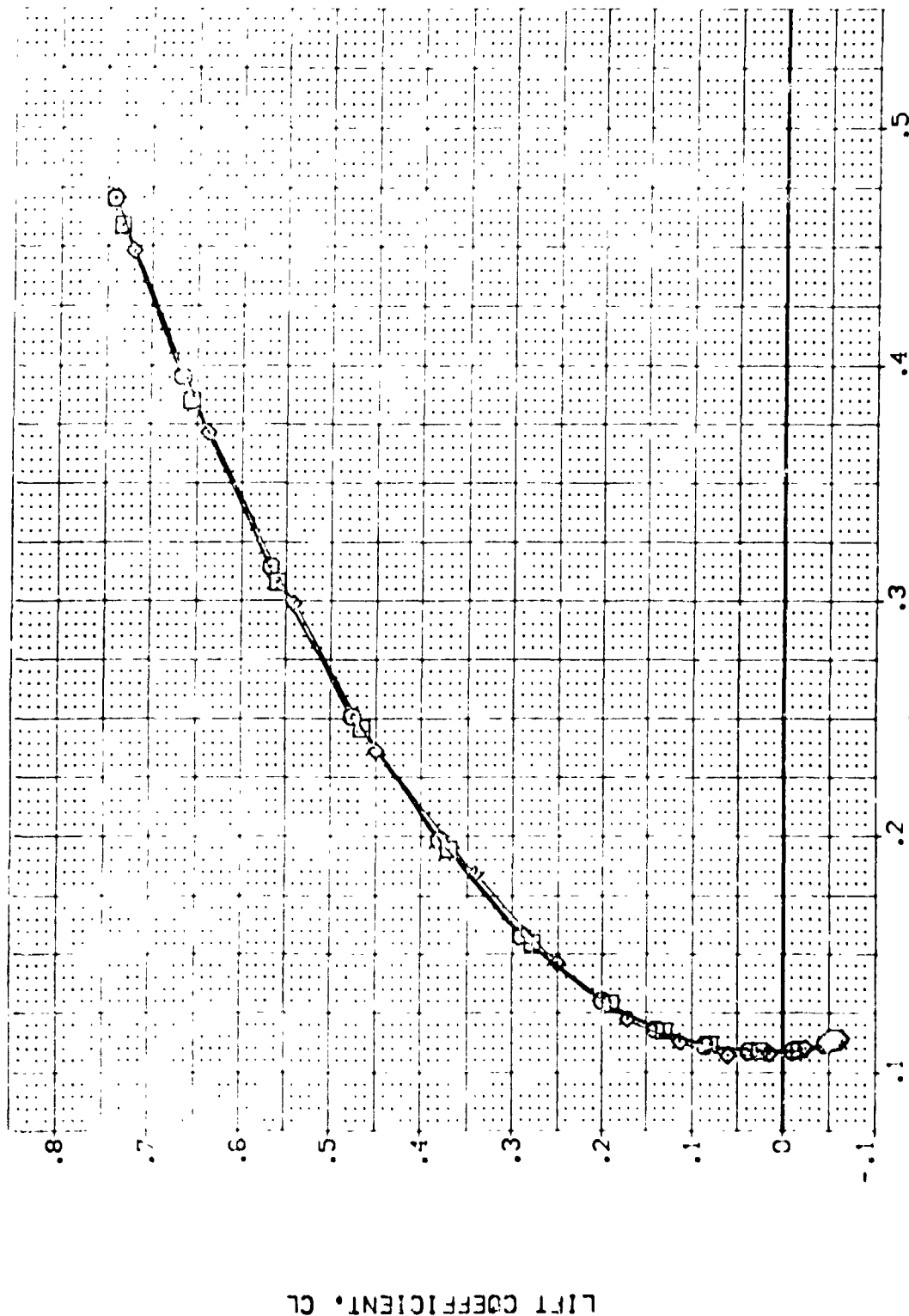


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	ALTRON	BOFLAP	SPDBRK	REFERENCE INFORMATION
1E R 17	ARC 87-747 OAS3C B C M F VI V	3.240	.000	.000	55.000	SREF 2.4210 SQ.FT.
1E R 16	ARC 87-747 OAS3C B C M F VI V	1.750	.000	.000	55.000	LREF 14.2440
1E R 15	ARC 87-747 OAS3C B C M F VI V	1.740	.000	.000	55.000	BREF 38.1004
						XREF 32.3010
						YREF 0.0000
						ZREF 11.2500
						SCALE 0.0000

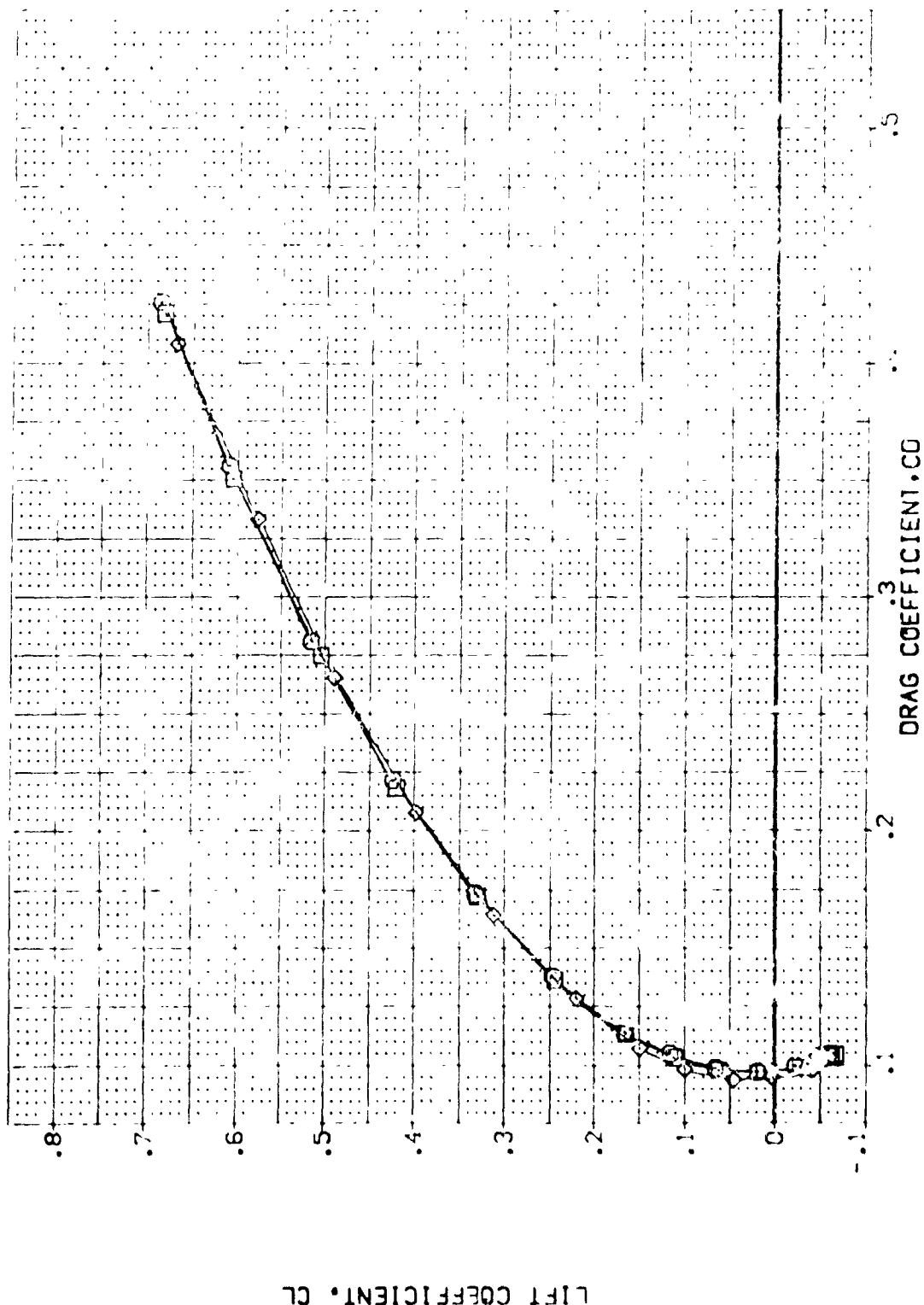


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(C)MACH = 3.50

DATA SET SYMBL	CONFIGURATION DESCRIPTION	RV/L	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[TEL:7]	ARC 87-747 CLASSIC B C M F VI	3.240	.000	.000	55.000	SREF 2.4710 SQ.FT.
[TEL:16]	ARC 87-747 CLASSIC B C M F VI	1.750	.000	.000	55.000	UREF 14.2440
[TEL:15]	ARC 87-747 CLASSIC B C M F VI	1.740	.000	.000	55.000	BREF 29.1004
						YMRP 32.3010
						ZMRP .0000
						SCALE 11.7500

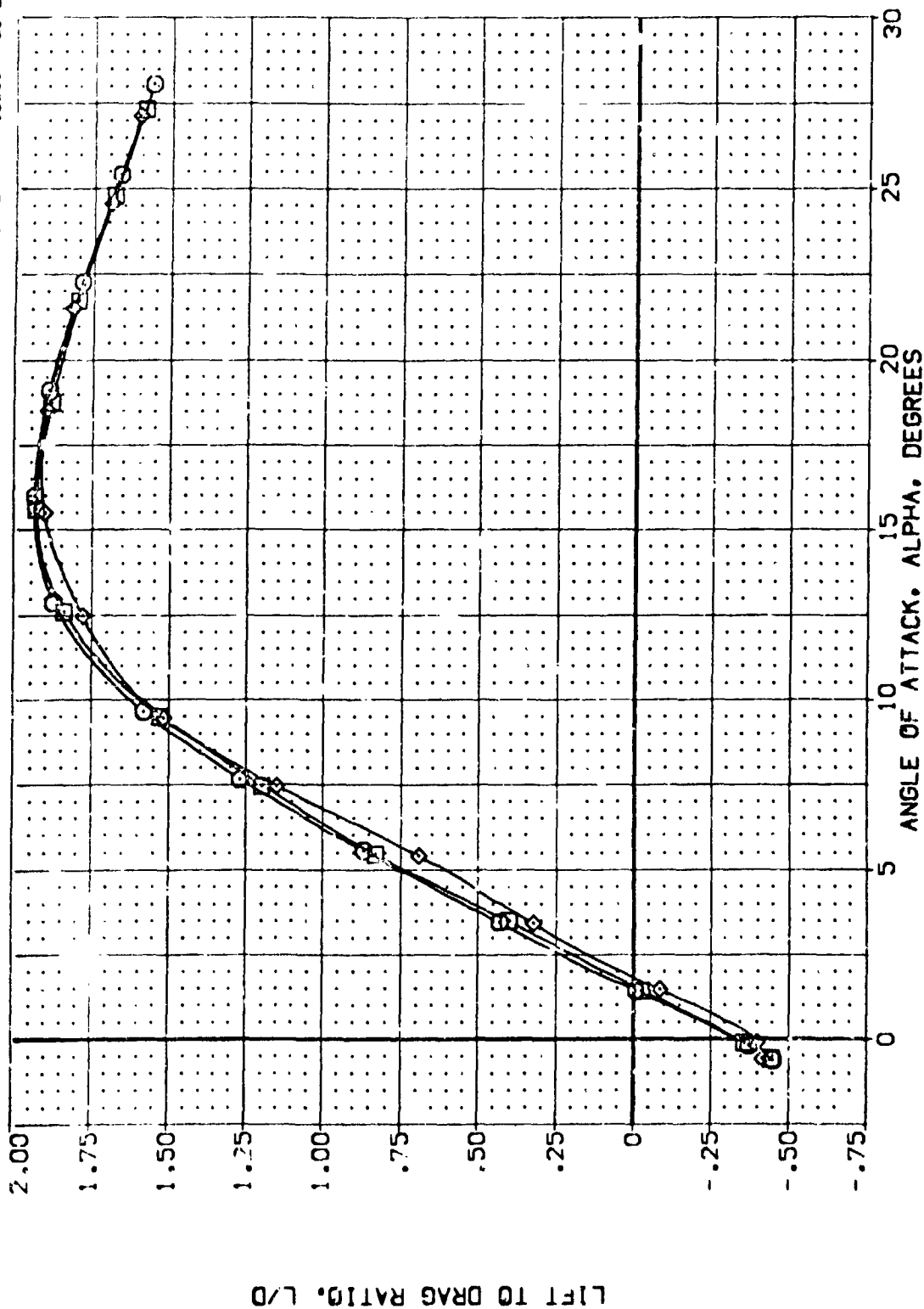


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(A)MACH = 2.50



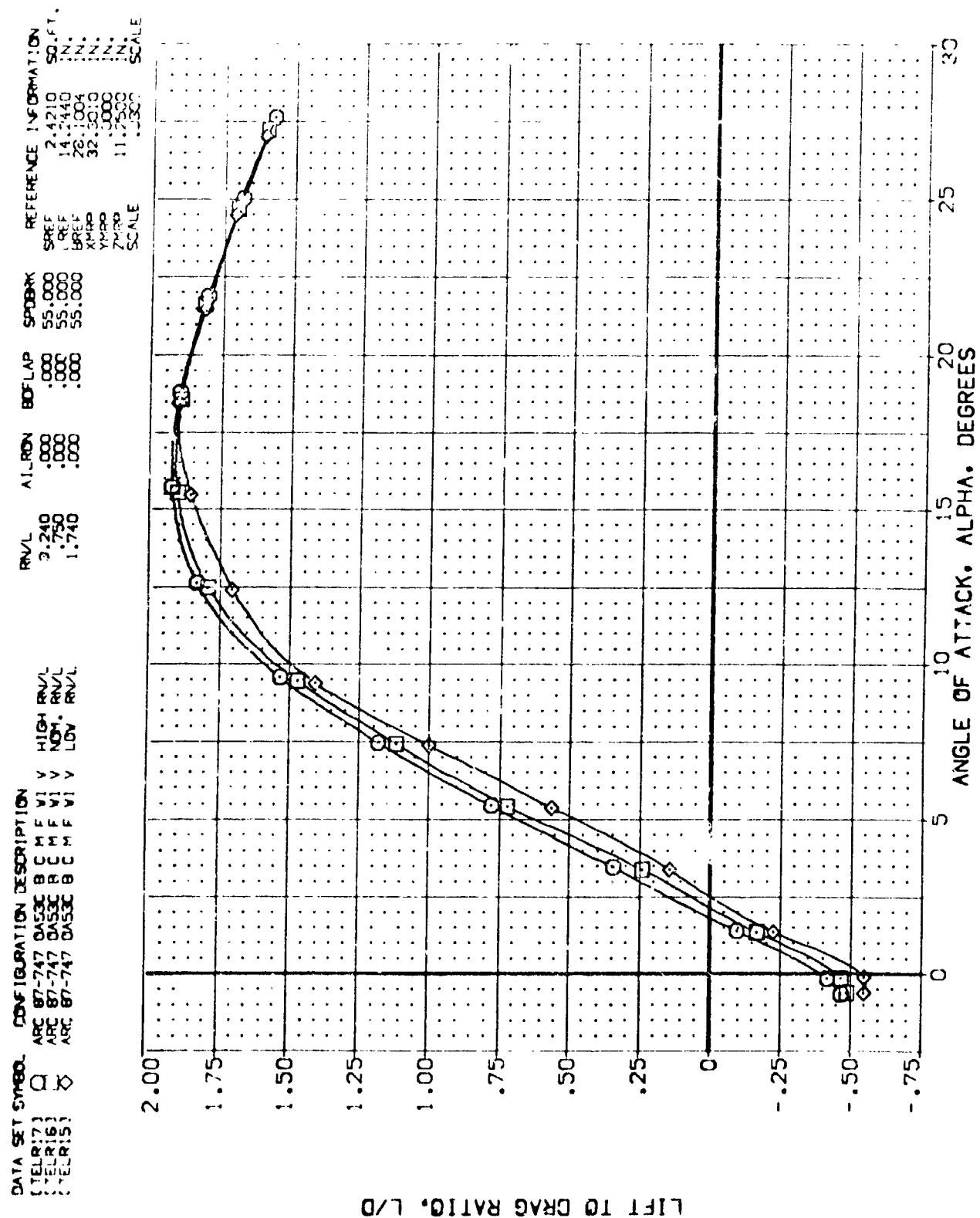


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

$$[E]_{MACH} = 3.00$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AIL/RON	BOF/LAP	SPDRBK	REFERENCE INFORMATION
[TELRI7]	ARC 87-747 OAS3C B C M F VI	3.240	.000	.000	55.000	SREF 2.4210 SQ.FT.
[TELRI6]	ARC 87-747 OAS3C B C M F VI	1.750	.000	.000	55.000	LREF 14.244C IN.
[TELRI5]	ARC 87-747 OAS3C B C M F VI	1.740	.000	.000	55.000	BREF 28.1004 IN.
						VMRP 32.300C IN.
						VMRP .000C IN.
						ZMRP 11.230C IN.
						SCALE .0300

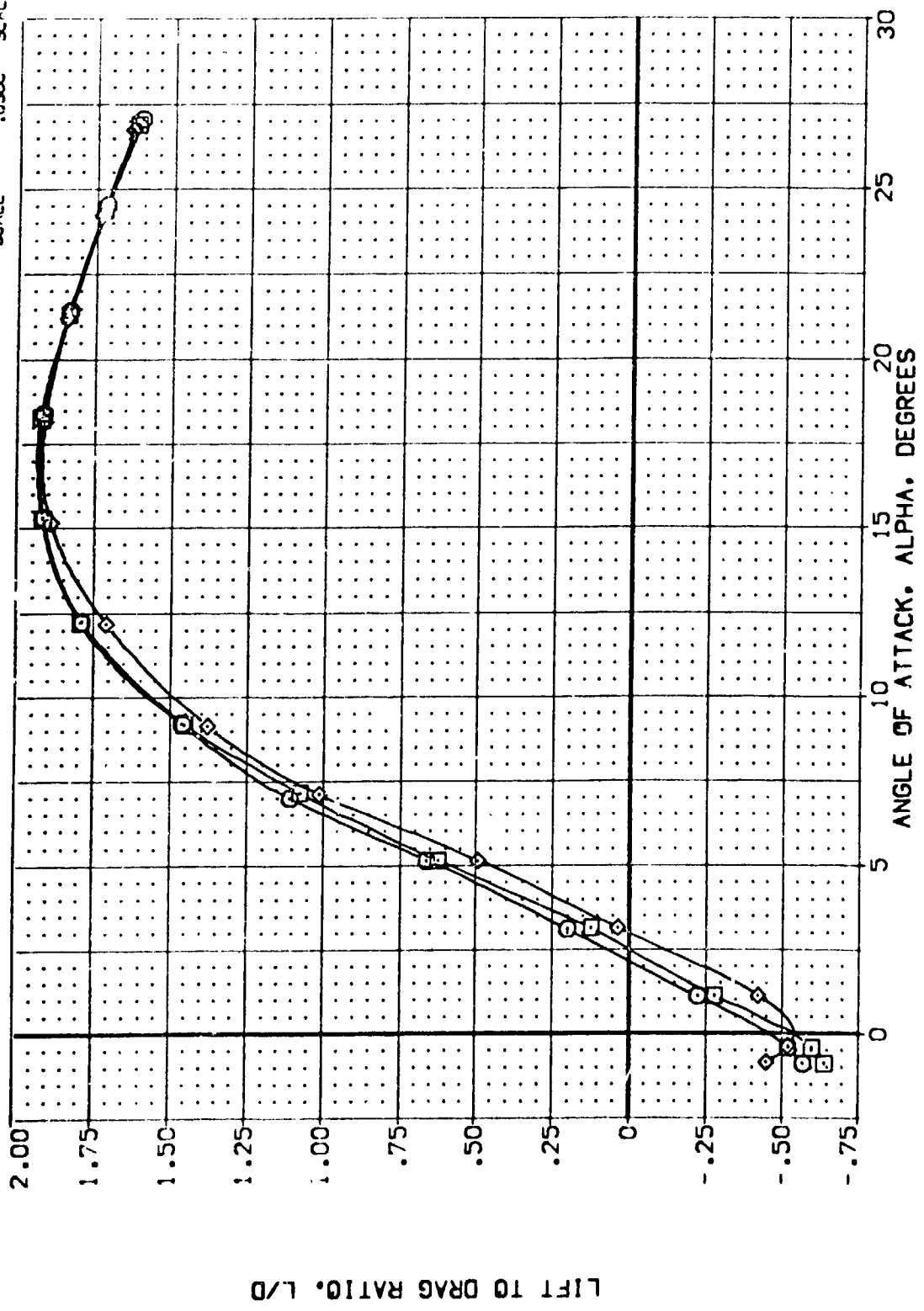


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL: [AELR17] [AELR16] [AELR15]

CONFIGURATION DESCRIPTION: ARC 87-747 DASSC B C M F V HIGH RV/L V NOT. RV/L LOW RV/L

RV/L: 3.240 1.740

AIRLON: .000 .000 .000

BOFLAP: .000 .000 .000

SPDBRK: 55.000 55.000 55.000

REFERENCE INFORMATION: SREF 2.4210 50. FT. LREF 14.2440 IN. BREF 28.1004 IN. XMRP 32.3010 IN. YMRP 32.0000 IN. ZMRP 11.2500 IN. SCALE .0300

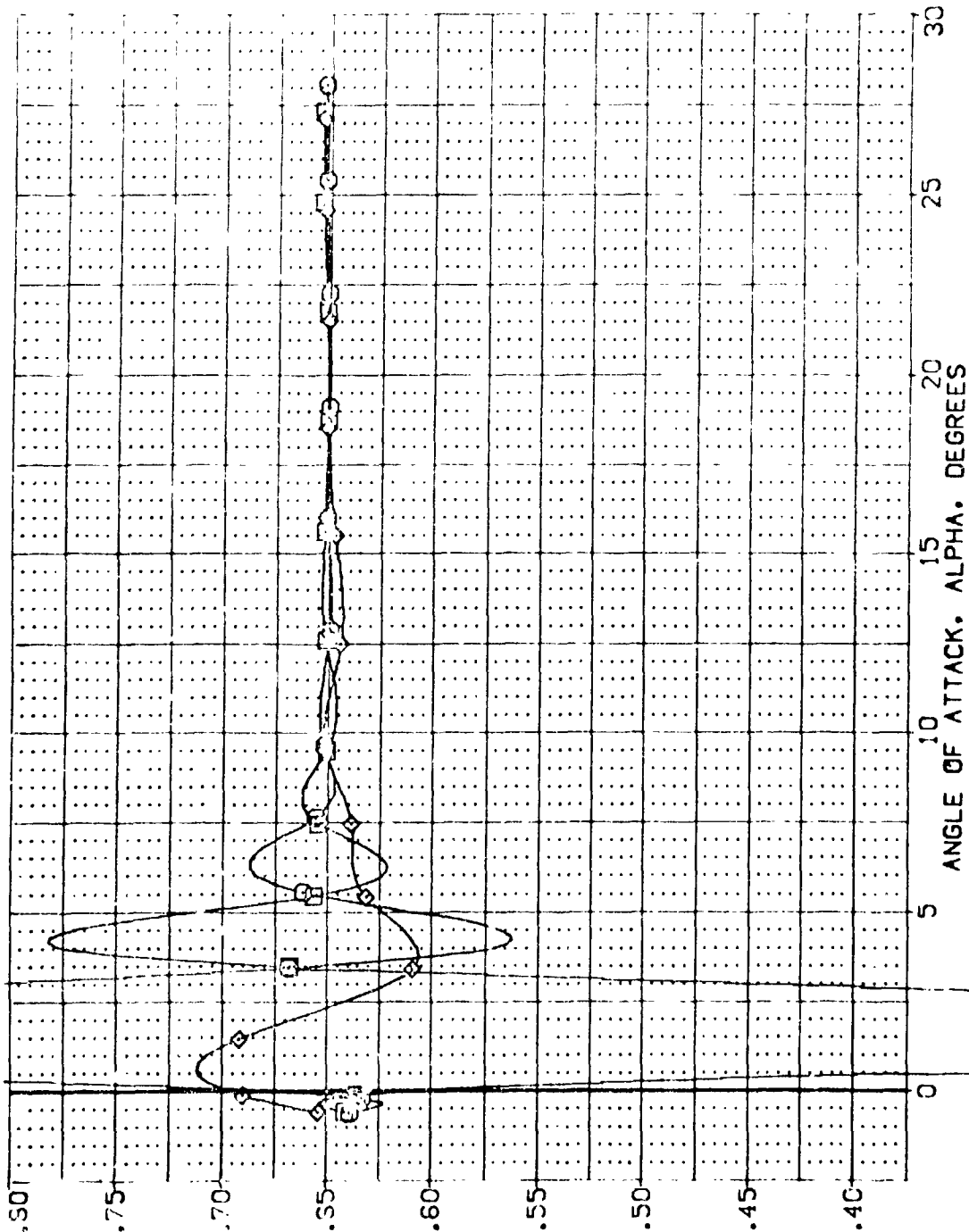


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(A)MACH = 2.50

DATA SETS: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

DESCRIPTION: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

REFERENCE INFORMATION: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

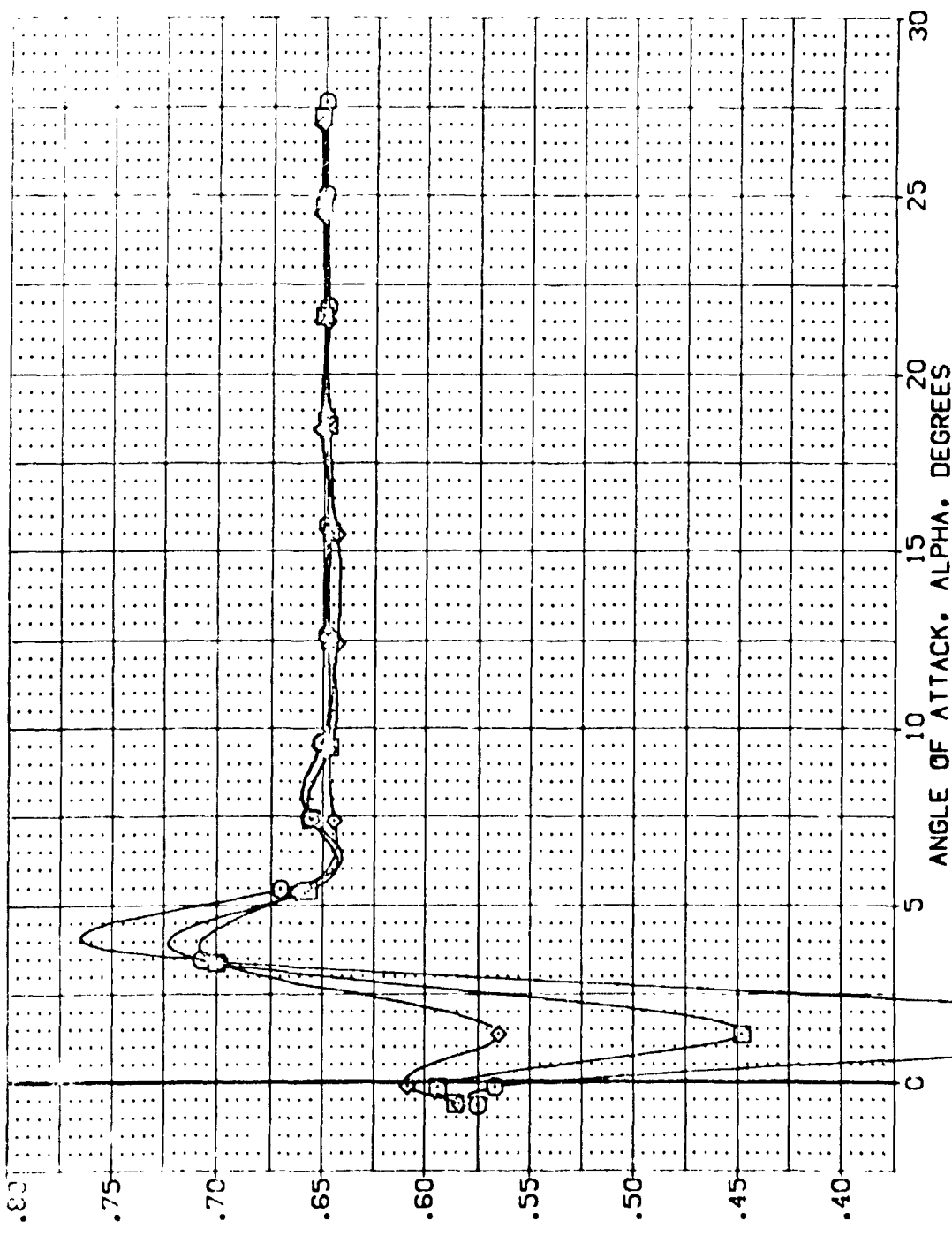


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	AIRLON	BO/LAP	SP/BRK	REFERENCE INFORMATION
[AELR17]	ARC 87-747 BASE B C M F V	3.240	.000	.000	55.000	SREF 2.4210
[AELR16]	ARC 87-747 BASE B C M F V	1.750	.000	.000	55.000	LOREF 14.2440
[AELR15]	ARC 87-747 BASE B C M F V	1.740	.000	.000	55.000	BRREF 28.1004
						XMRP 32.3010
						ZMRP .0000
						SCALE 11.2500
						SCALE .0300

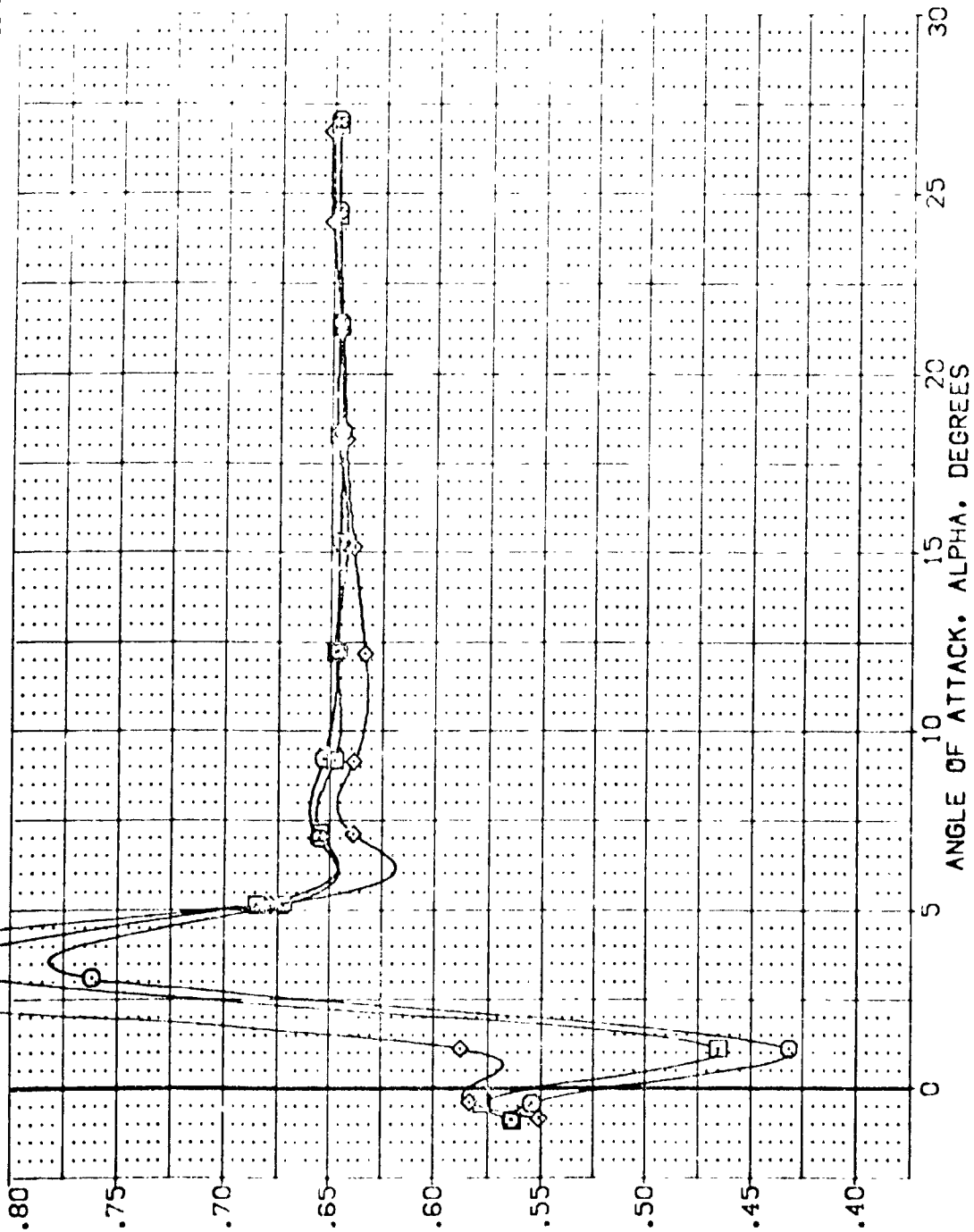


FIG. 5 LONGITUDINAL REYNOLDS NUMBER EFFECTS

(C)MACH = 3.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (TEL028) ☐ ARC 87-747 OAS3C B C M F V2 Y NOM: RV/L  
 (TEL016) ☐ ARC 87-747 OAS3C B C M F V1 V NOM: RV/L

ELEVON AILRON BOFLAP SPOBRK  
 .000 .000 .000 .000  
 .000 .000 .000 .000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.2440  
 BREF 28.1004  
 XREF 32.5010  
 YREF 11.2750  
 ZREF 0.000  
 SCALE 0.000

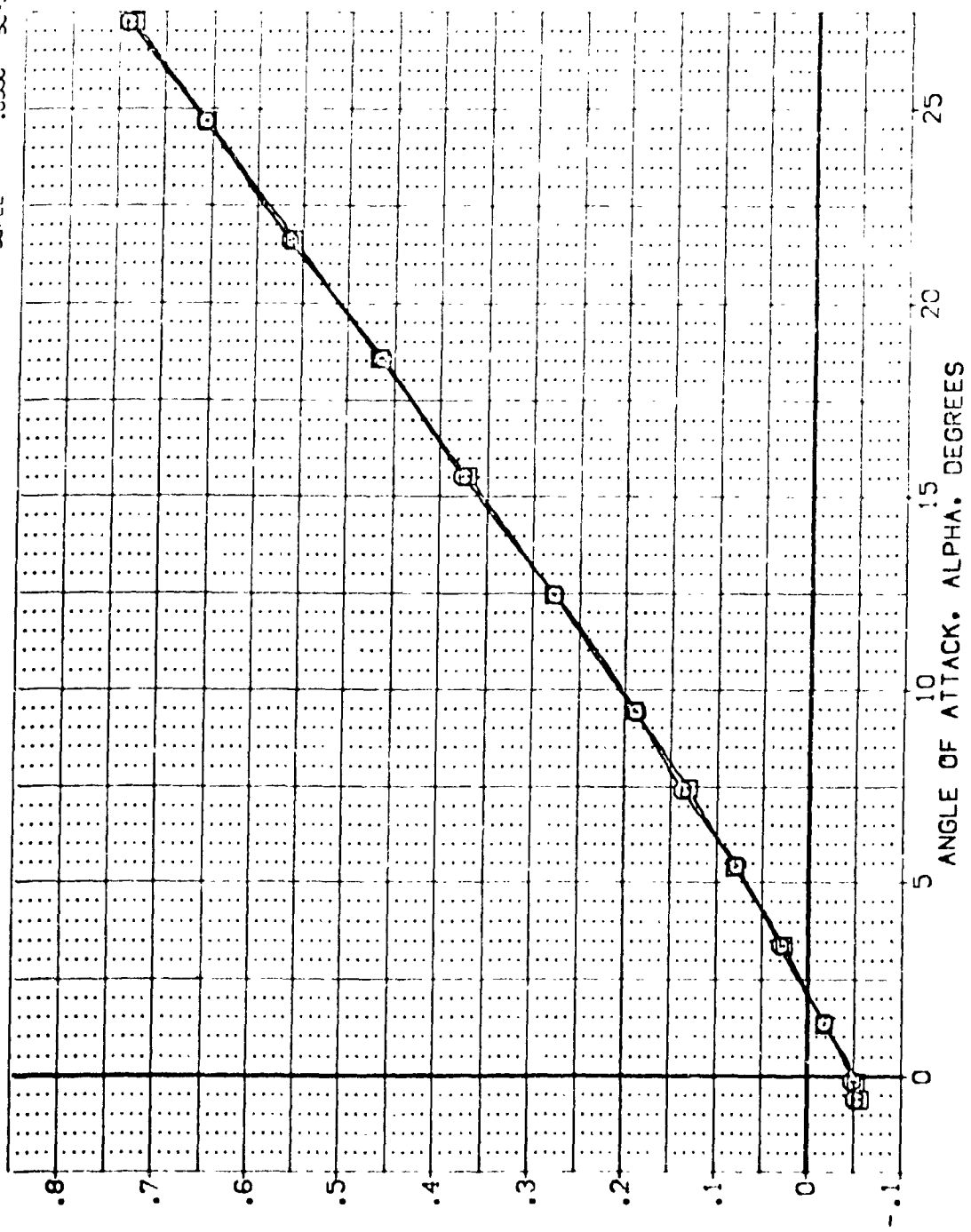
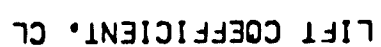


FIG. 6 WING MATRIX

(B)MACH = 3.00

ITEM	DESCRIPTION	QTY	UNIT	PRICE	TOTAL	REMARKS
ARC 8-14	CA53C B C M F 12 V	1				NON. RVL
ARC 8-147	CA53C B C F 11 V	1				NON. RVL



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DATA SET SYMBOL: 8  
 CONFIGURATION DESCRIPTION: ARC 87-747 B A53C B C M F V2 V NOM: RVUL  
 REF: TEL028  
 REF: TEL016

ELEVON: .000  
 AIRLON: .000  
 BDF LAR: .000  
 SPOBRK: 55.000  
 55.000

REFERENCE INFORMATION:  
 SREF: 2.4210 50.17  
 LREF: 14.2440  
 BREF: 28.1004  
 XMRP: 32.3010  
 YMRP: 32.3010  
 ZMRP: 11.7500  
 SCALE: .0000

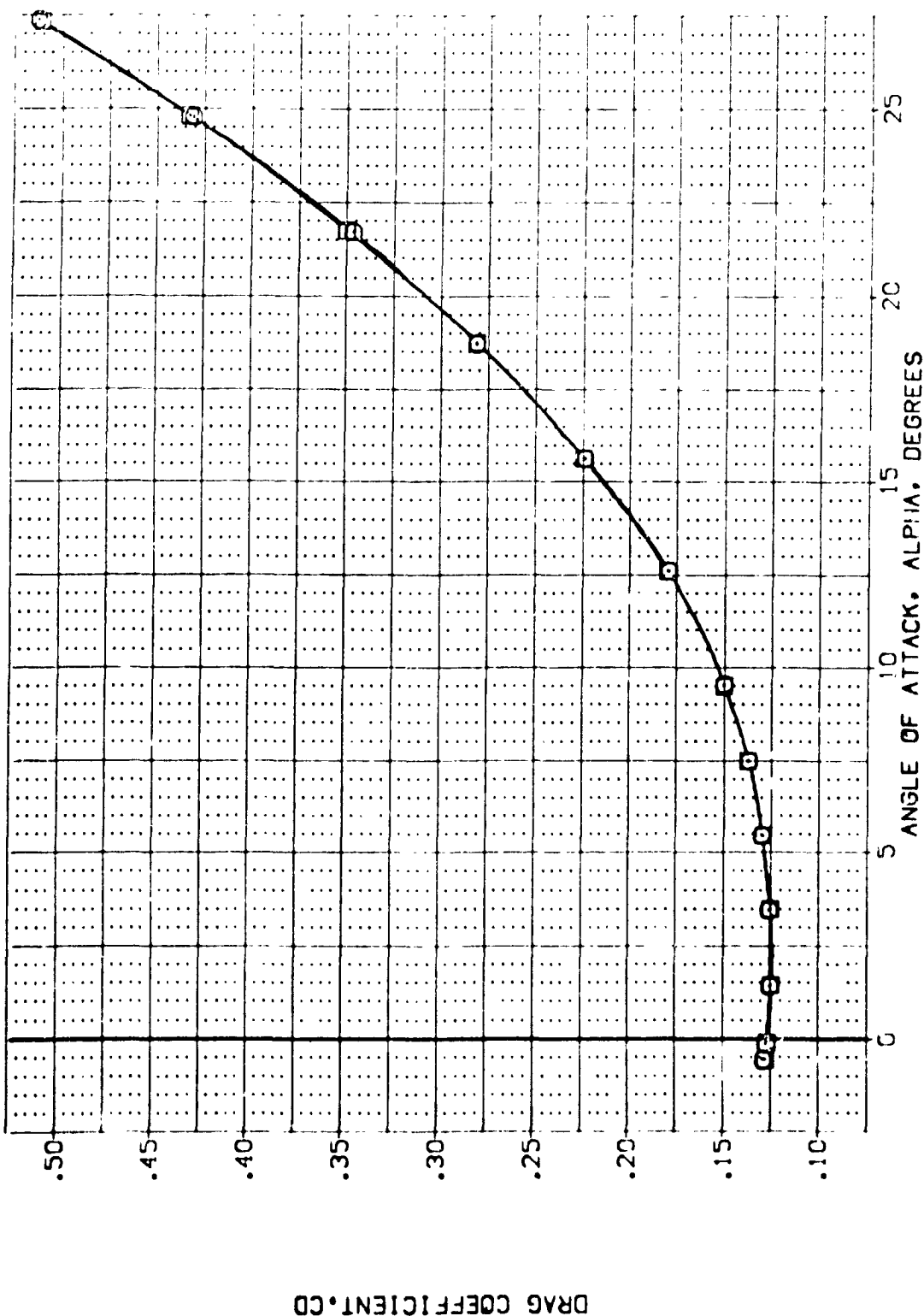


FIG. 6 WING MATRIX  
 (A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	AIRLIFT	BOFLAP	SPDRON	REFERENCE INFORMATION
1	1	ARC 87-17 3A53C B C M F V	.000	.000	.000	55,000	SREF 2.4210 50.0 FT.
2	2	ARC 87-17 3A53C B C M F V	.000	.000	.000	55,000	LREF 14.2440 50.0 FT.
							LRREF 28.1000 50.0 FT.
							XRREF 32.3010 50.0 FT.
							YMRD 11.2300 50.0 FT.
							ZMRD 10.300 50.0 FT.
							SCALE .0300

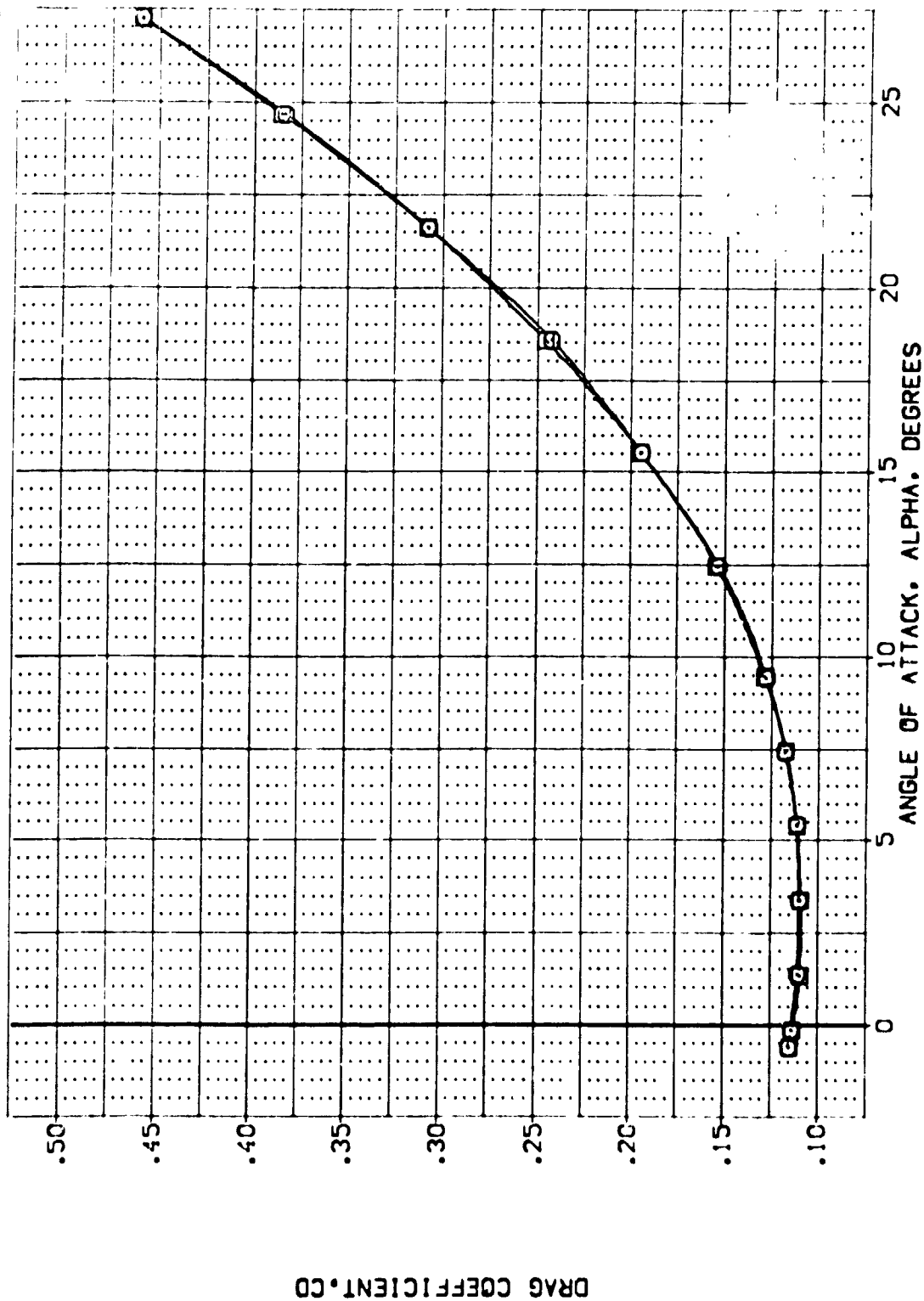


FIG. 6 WING MATRIX  
(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	AIRLIFT	BOFLAP	SPOBRK	REFERENCE INFORMATION
(1)EL020	ARC 87-747 BASIC B C M F V2 V	.000	.000	.000	55.000	SREF 2.4210 50.00
(1)EL016	ARC 87-747 BASIC B C M F V1 V	.000	.000	.000	55.000	LREF 14.2440 10.00
						BREF 28.1000 10.00
						XREF 32.3010 10.00
						YREF 11.0000 10.00
						ZREF 11.0000 10.00
						SCALE .0300

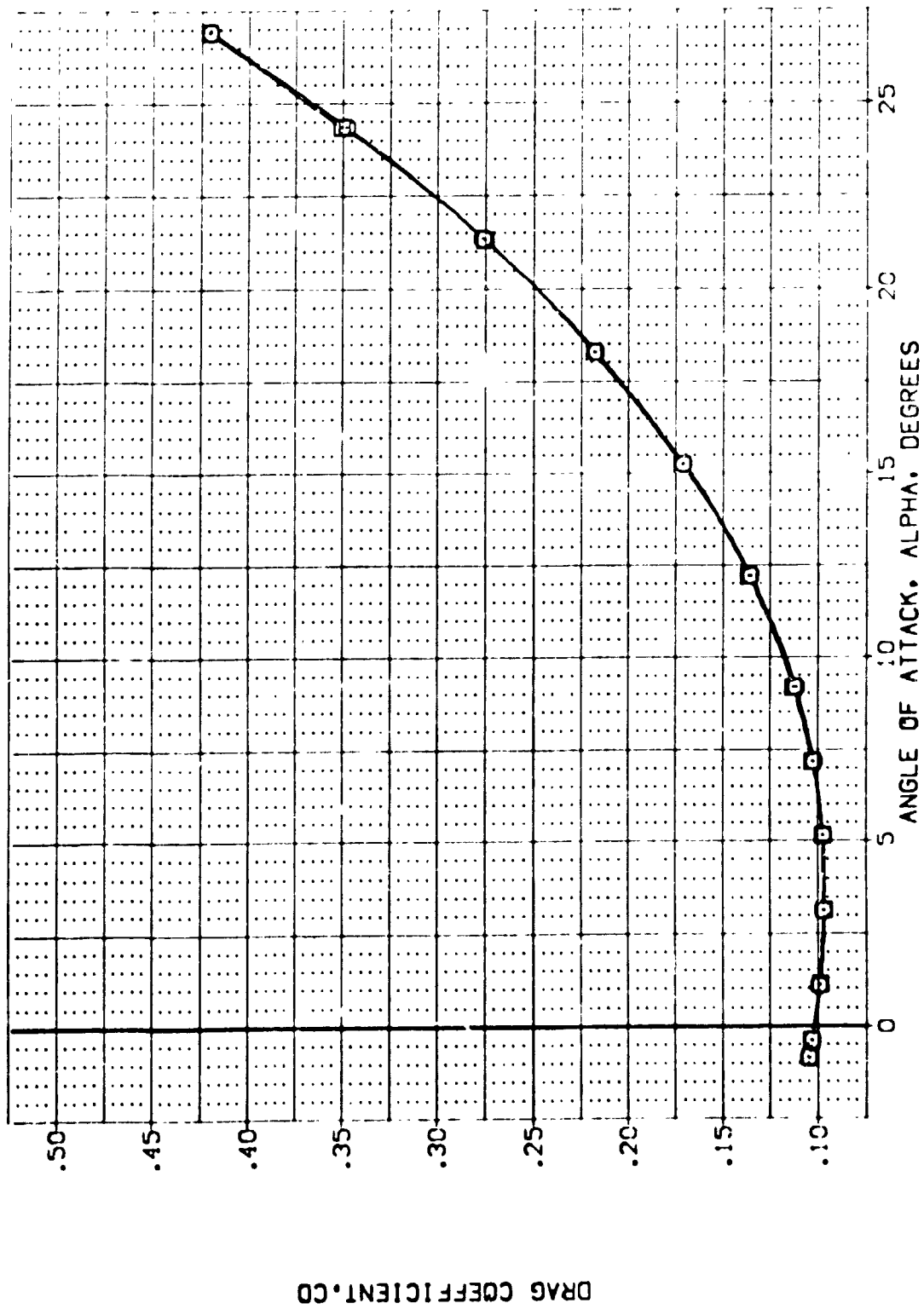


FIG. 6 WING MATRIX

(C)MACH = 3.50



DATA SET SYMBOL: TEL028) TEL016)

CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C M F V2 V NON: RV/L

ELEVON: .000 .000

AILERON: .000 .000

BOFLAP: .000 .000

SPOBRK: 55.000 55.000

REFERENCE INFORMATION: SREF: 2.4210 50.0 FT. LREF: 14.2440 BOEFF: 28.1000 XREF: 32.0000 XREF: 0.0000 ZREF: 11.0000 SCALE: .0300

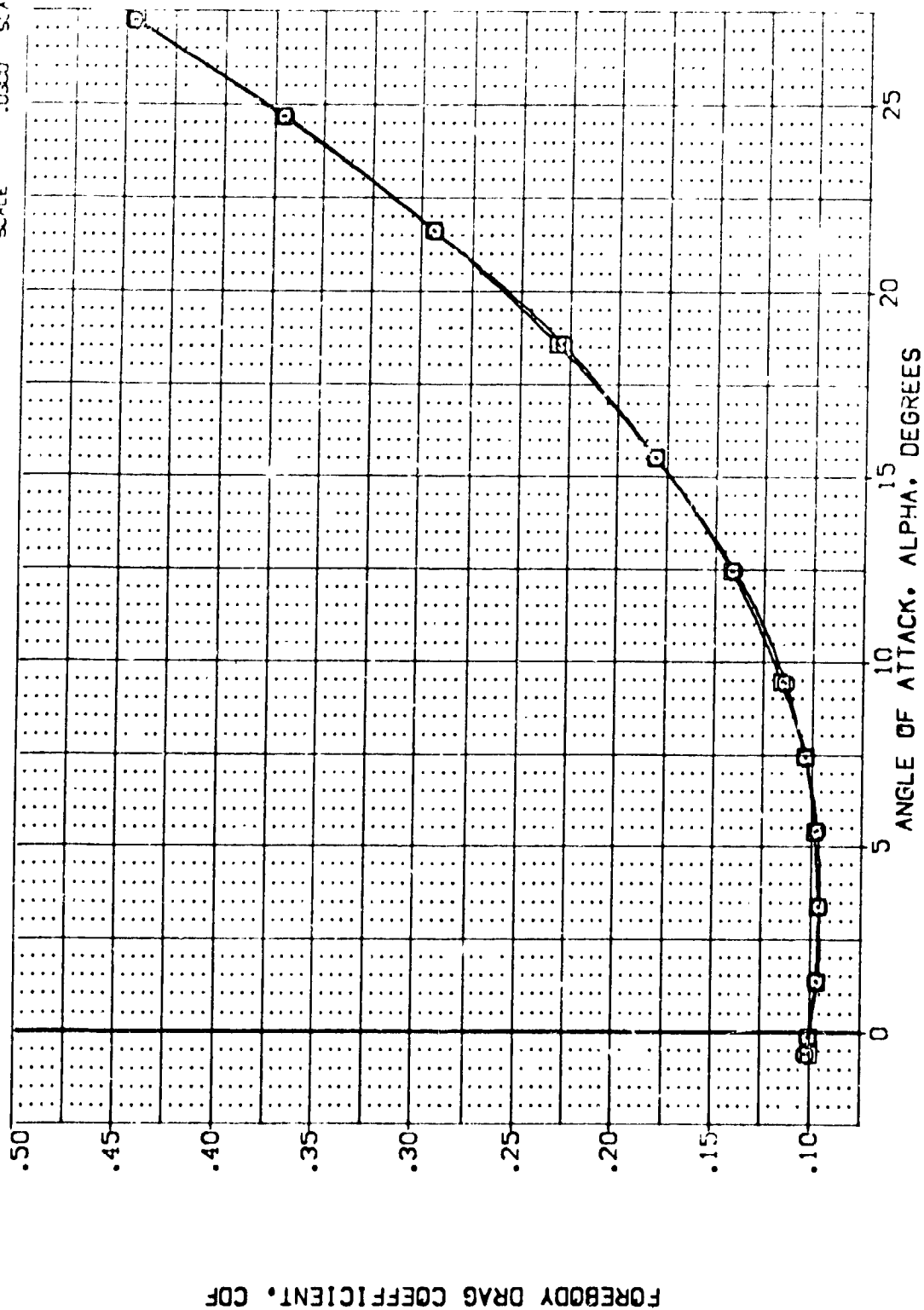


FIG. 6 WING MATRIX  
(8)MACH = 3.00



DATA SET SYMBOL: 8  
 CONFIGURATION DESCRIPTION: ARC 87-747 GASC B C M F V2 V NOM. RV/L  
 REFERENCE INFORMATION: SREF 2.421C 50. FT.  
 LREF 14.244C N.  
 BREF 28.100C N.  
 XMRP 32.301C N.  
 YMRP 0.000 N.  
 ZMRP 11.750C N.  
 SCALE 0.000 SCALE

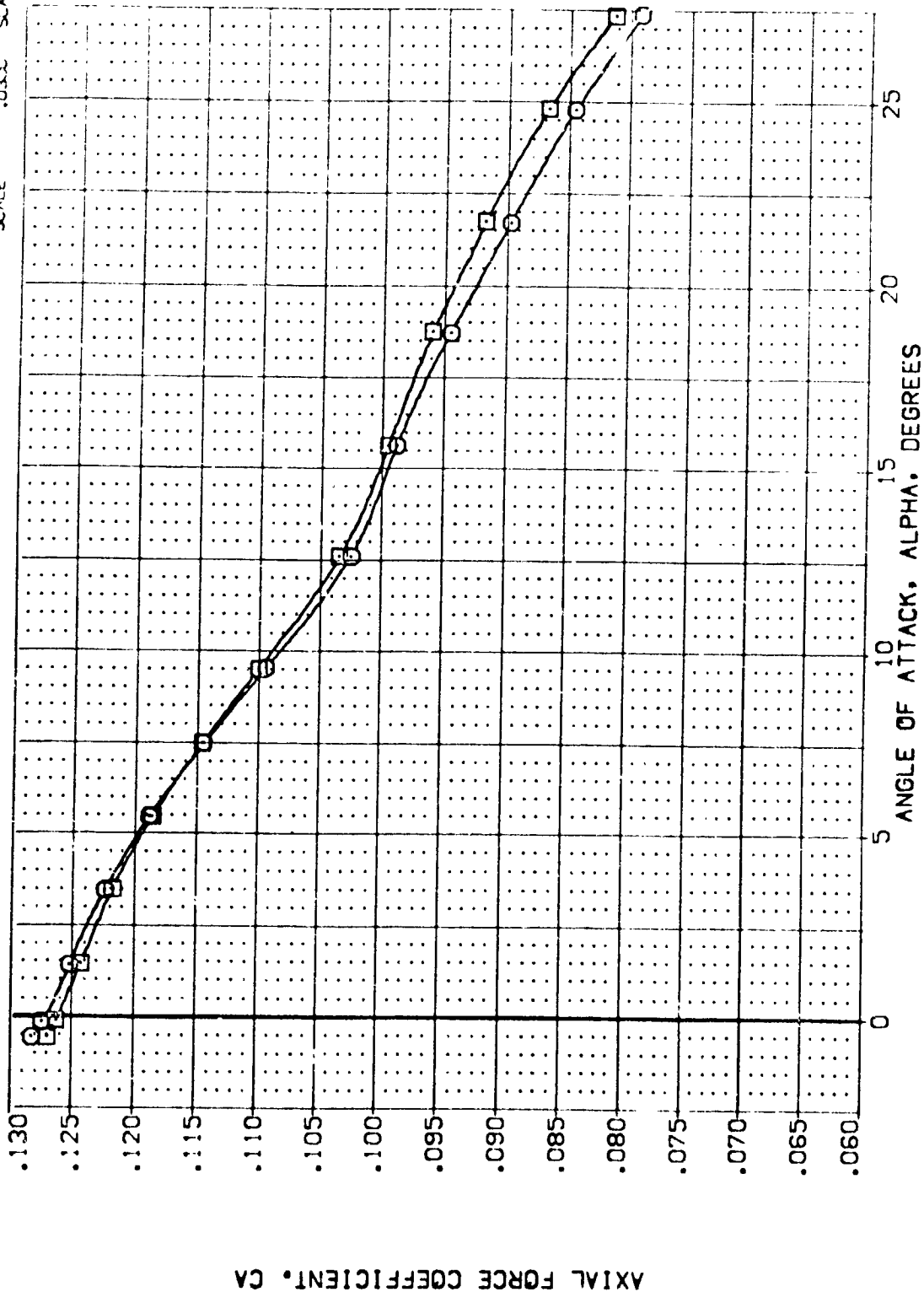


FIG. 6 WING MATRIX  
 (A)MACH = 2.50

DATA SET SYMBOL: 17C 87-747 C-53C B C M F V2 V NOM: RV/L  
 REFERENCE INFORMATION: SREF: 2.4210 12.17  
 LREF: 14.2440  
 BREF: 28.1004  
 XMRP: 37.3010  
 YMRP: .0000  
 ZMRP: 11.7500  
 SCALE: .0300

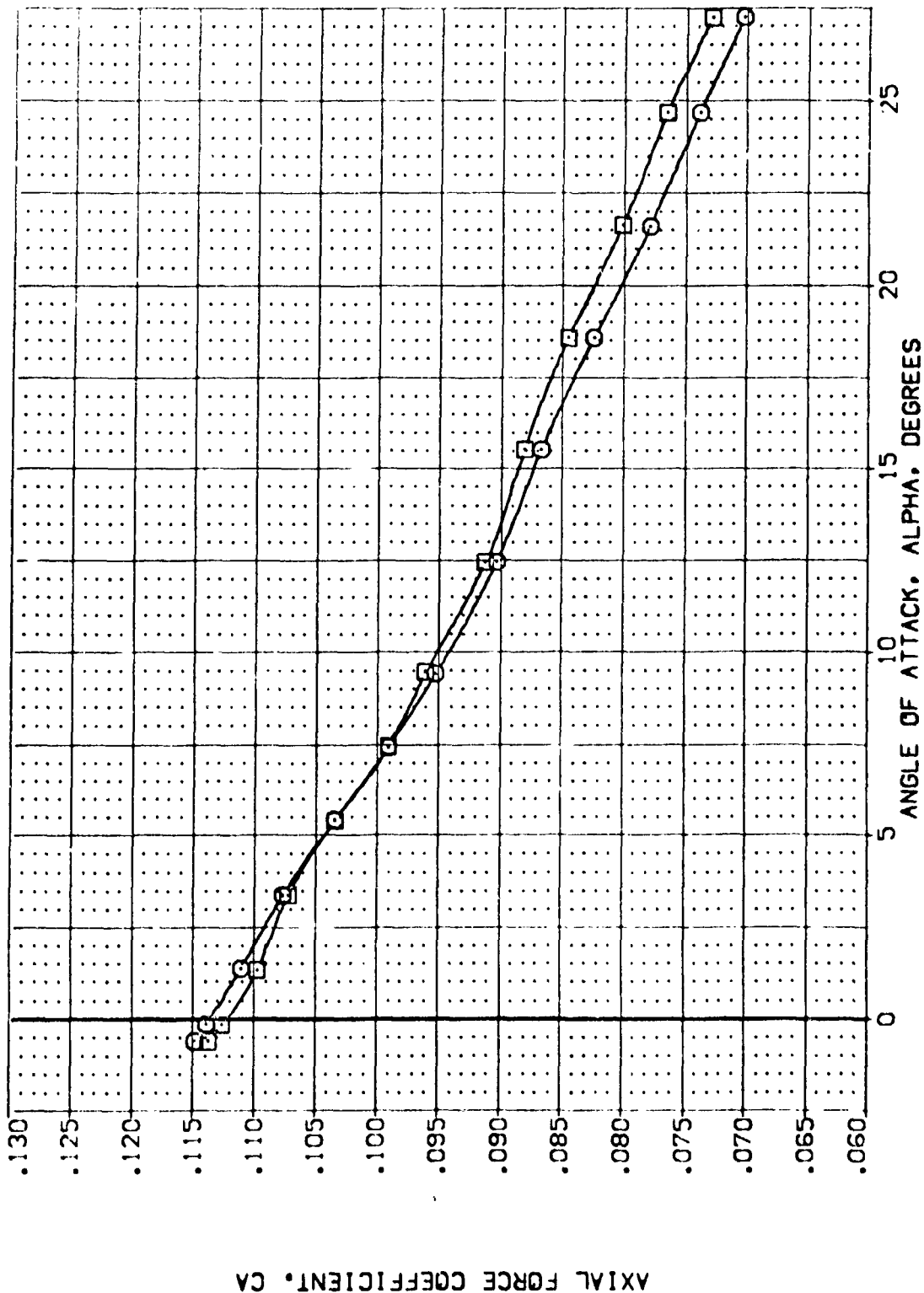


FIG. 6 WING MATRIX

(B)MACH = 3.00





DATA SET SYMBOL: [ ]  
[TELO28]  
[TELO16]

CONFIGURATION DESCRIPTION:  
ARC 87-747 QAS3C B C M F V2 V  
ARC 87-747 QAS3C B C M F V1 V

ELEVON: .000  
AILTRON: .000  
BDF LAP: .000  
SPOBARK: .000  
S5.000  
S5.000

REFERENCE INFORMATION:  
SREF: 2.4210 SQ. FT.  
LREF: 14.2140 IN.  
BREF: 28.1004 IN.  
XMRP: 32.3010 IN.  
YMRP: .0000 IN.  
ZMRP: 11.2500 IN.  
SCALE: .0300

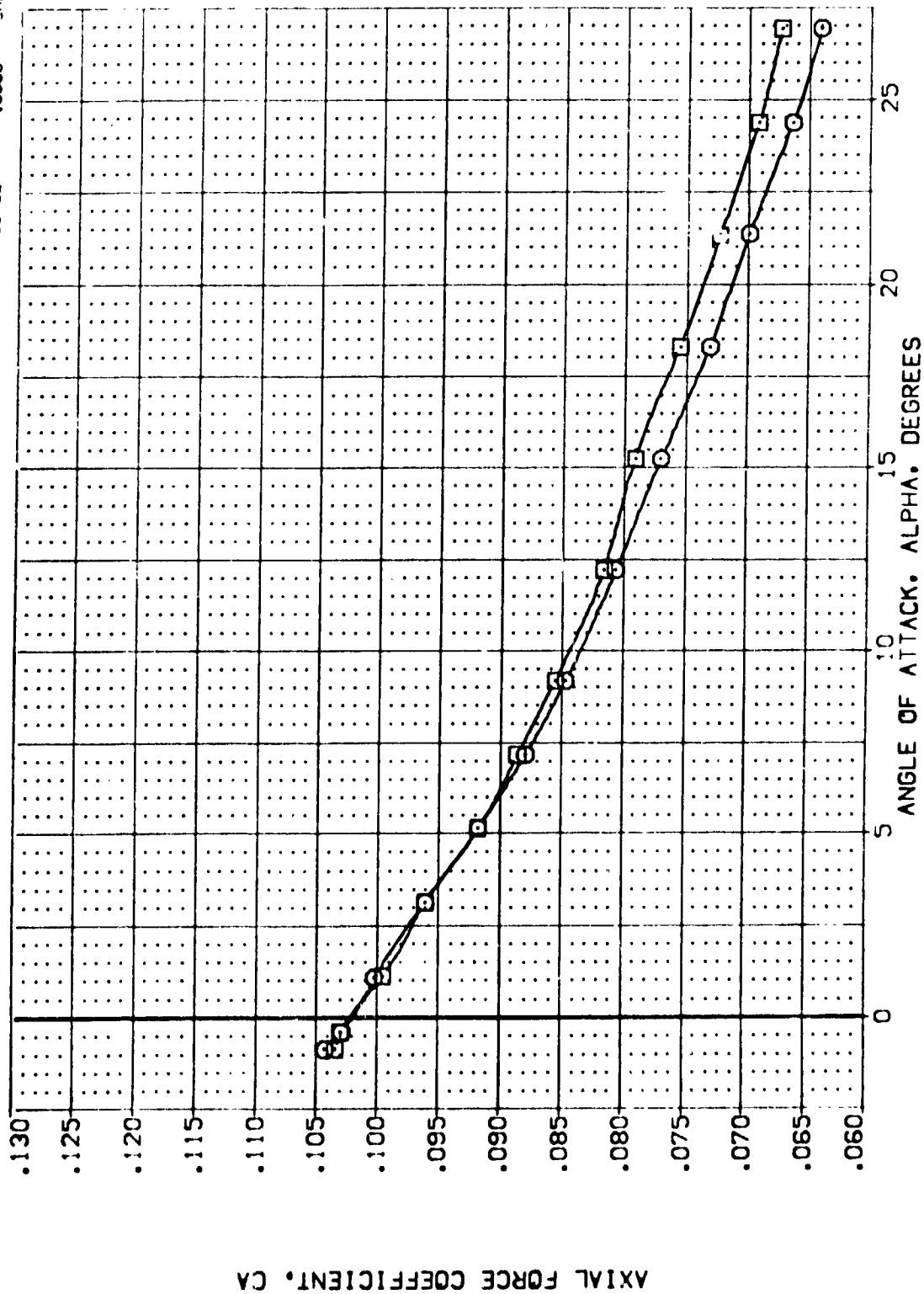


FIG. 6 WING MATRIX

(C)MACH = 3.50

DATA SET SYMBOL: CONFIGURATION DESCRIPTION

ARC 87-747 2.553C B C M F V2 V NOM. RW/L

ARC 87-747 2.553C B C M F V: V NOM. RW/L

REFERENCE INFORMATION

SREF 2.4210 50.00

LREF 14.2440 55.000

BREF 28.1004 55.000

XREF 32.3010

YREF 0.000

ZREF 11.2500

SCALE 0.000

ELEVON AILRON 80FLAP SPOBRK

.000 .000 .000 .000

.000 .000 .000 .000

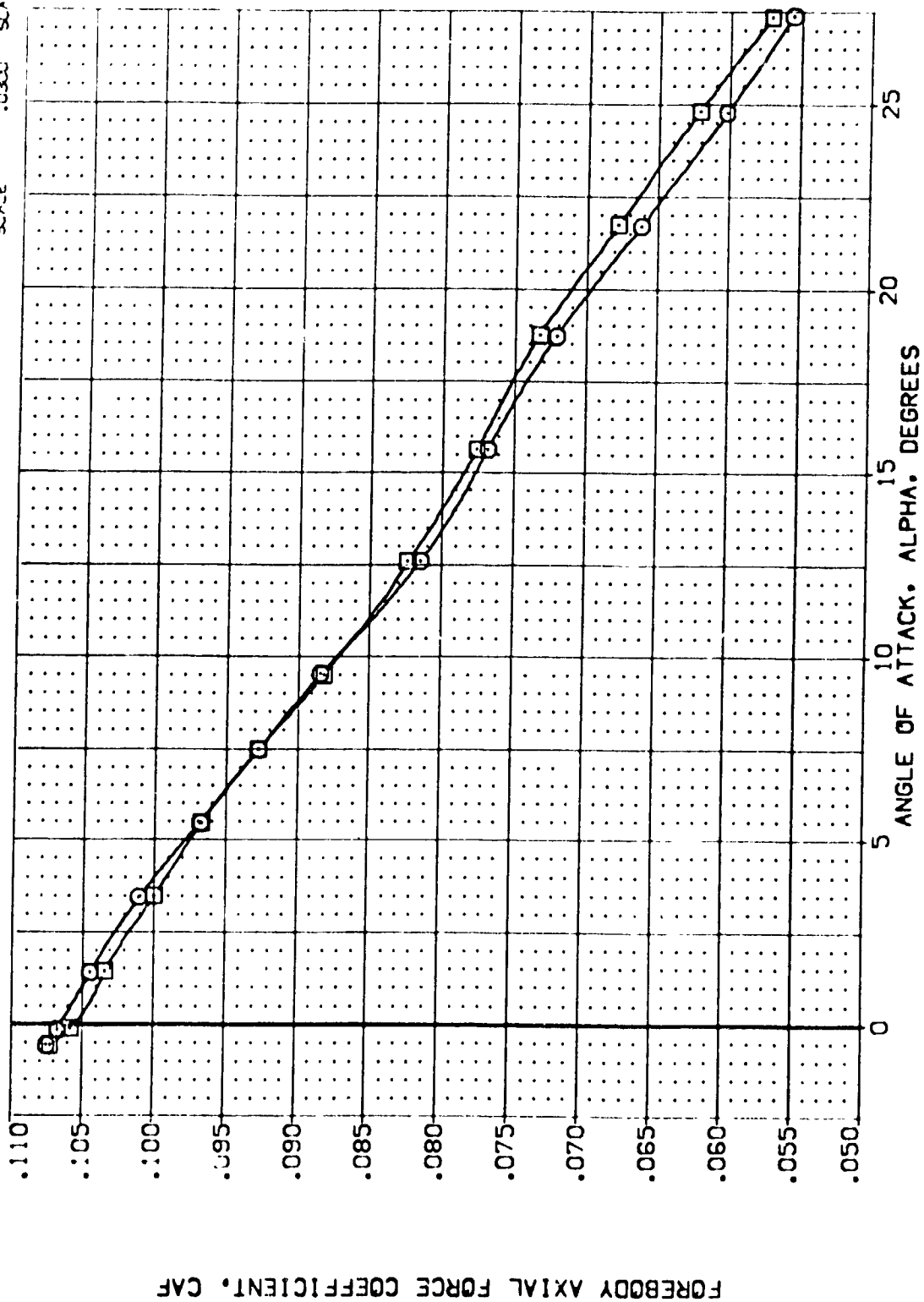


FIG. 6 WING MATRIX

(MACH = 2.50)

DATA SET SYMBOL: [ ]  
 CONFIGURATION DESCRIPTION: ARC 87-747 QAS3C B C M F V2 V  
 REFERENCE INFORMATION: REF: 2.4210 SQ.FT.  
 REF: 14.2440  
 REF: 28.1004  
 REF: 37.3010  
 REF: 11.2500  
 REF: 0.300 SCALE  
 ELEVON: .000 .000 .000  
 AIRLON: .000 .000 .000  
 BDF LAP: .000 .000 .000  
 SPOBRK: 55.000 55.000

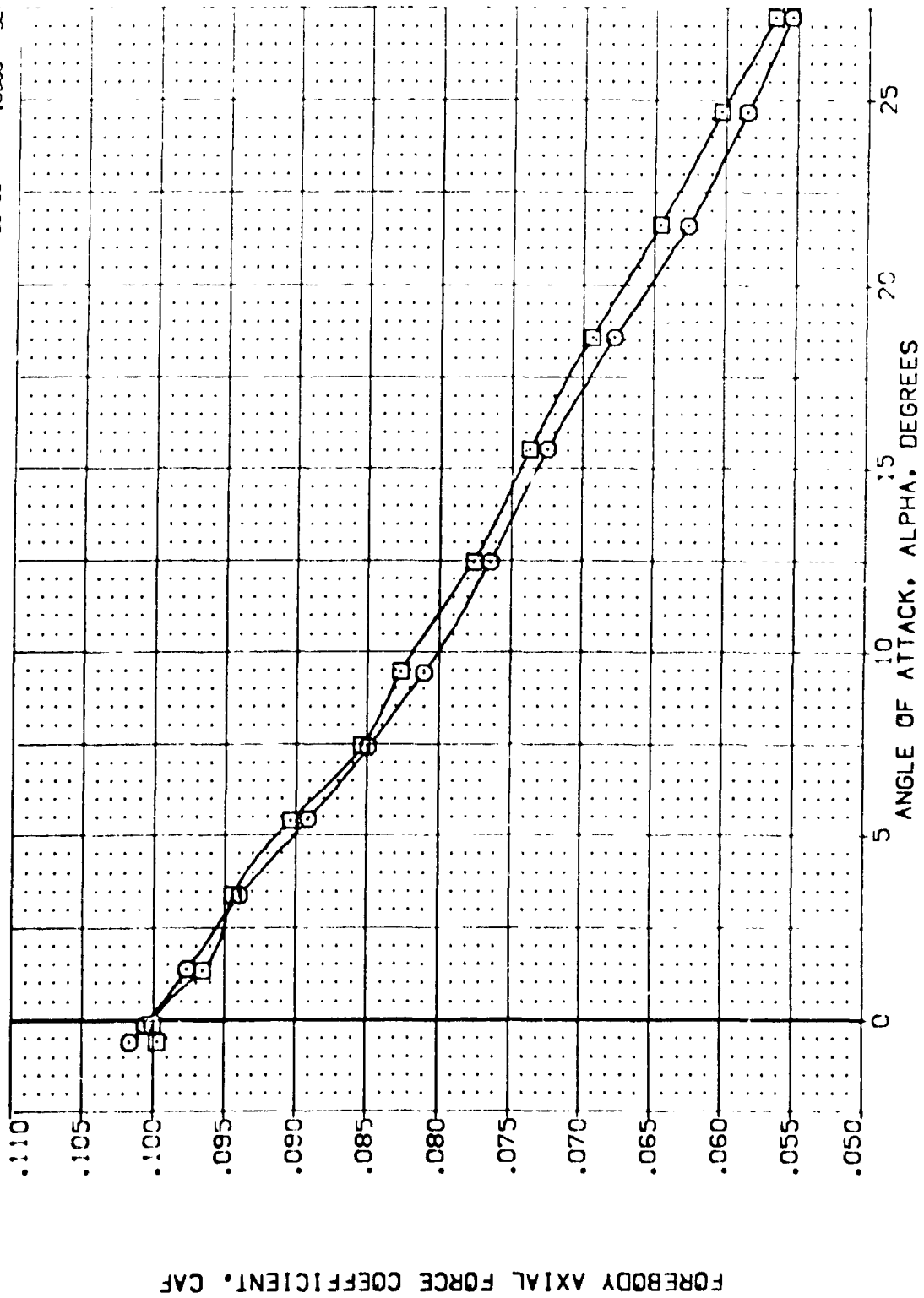


FIG. 6 WING MATRIX  
 (B)MACH = 3.00



DATA SET SYMBOL: [TELO78] [TELO16] CONFIGURATION DESCRIPTION: ARC 87-747 QAS3C B C M F V2 V NM: RNAL  
 ARC 87-747 QAS3C B C M F V1 V NM: RNAL

ELEVON: .000 .000 .000 AILERON: .000 .000 .000 BOFLAP: .000 .000 .000 SPODBRK: 55,000 55,000 55,000

REFERENCE INFORMATION:  
 SREF: 2.4210 SQ.FT.  
 LREF: 14.244C  
 BREF: 28.1004  
 XMRP: 32.301C  
 YMRP: 0.000  
 ZMRP: 11.2500  
 SCALE: .0300

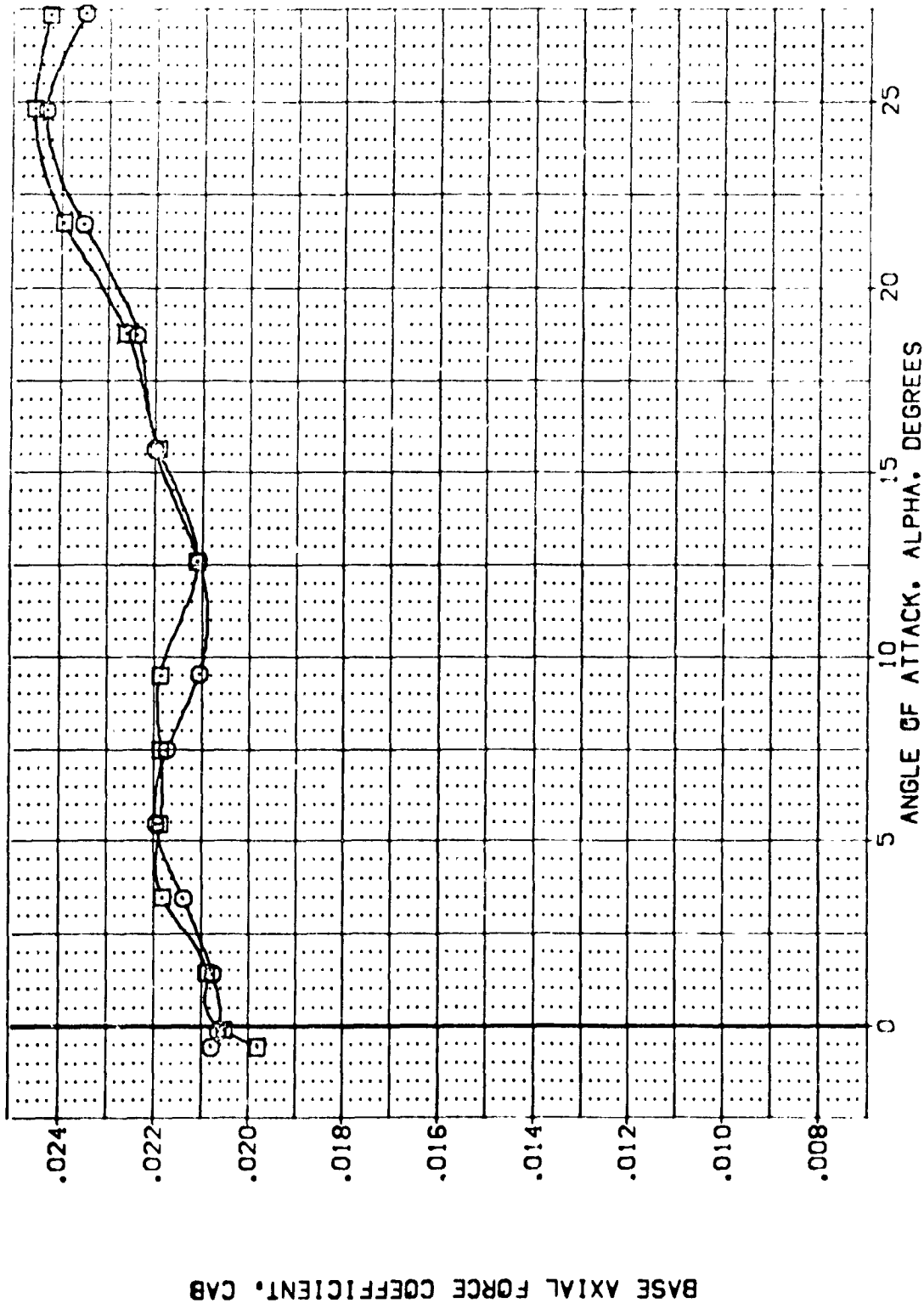


FIG. 6 WING MATRIX

(A)MACH = 2.50

DATA SET SYMBOL: (1)  
 (TELECOM)  
 (TELECOM)

CONFIGURATION DESCRIPTION  
 ARC 87-74T 2453C B C M F V2 V  
 ARC 87-74T 2453C B C M F V1 V

ELEVON AILRON BOFLAP SPDBRK  
 .000 .000 .000 55.000  
 .000 .000 .000 55.000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.2440  
 BREF 28.1000  
 YARP 37.3010  
 ZARP 11.2500  
 SCALE .0300

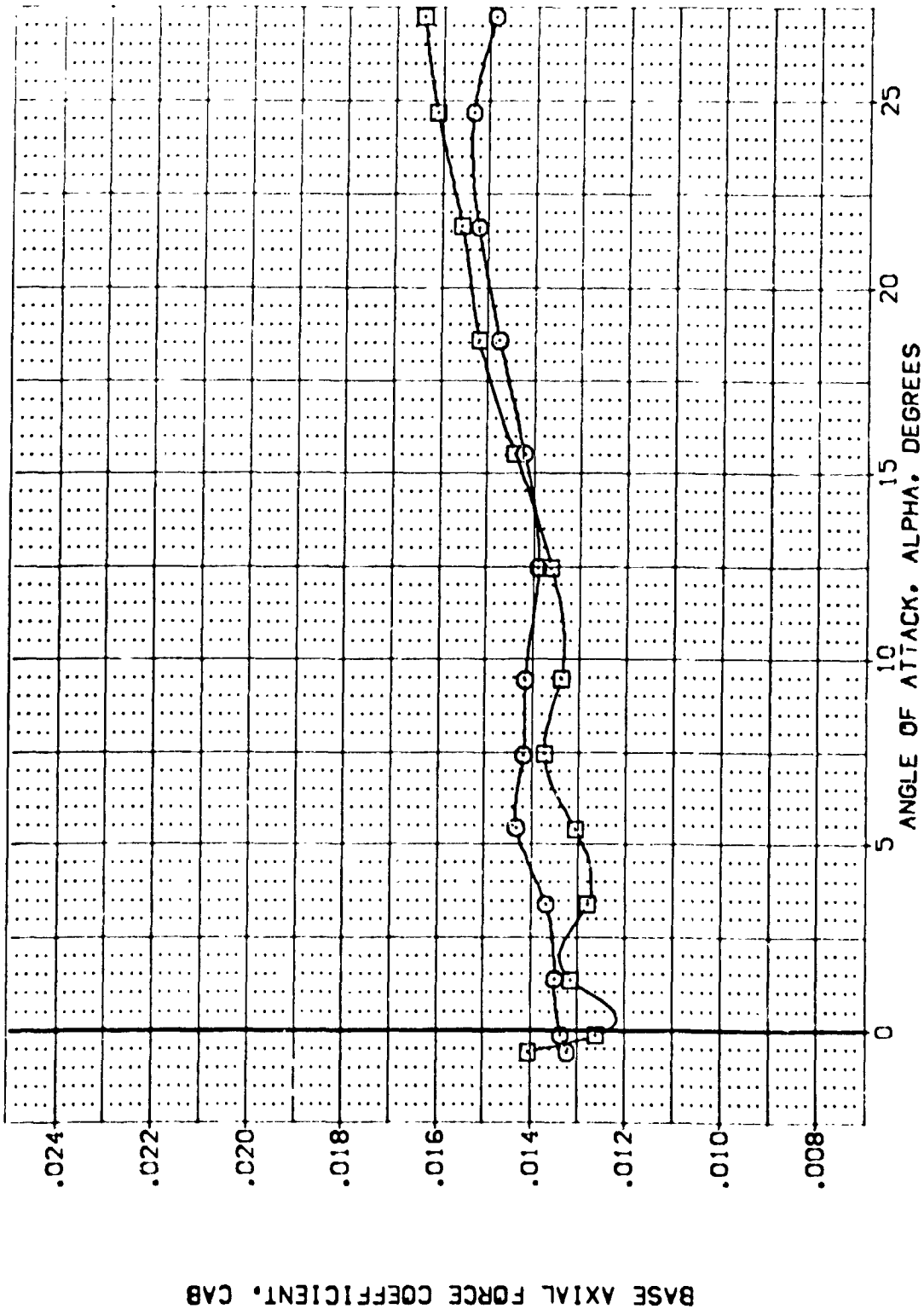


FIG. 6 WING MATRIX

(B)MACH = 3.00

DATA SET SYMBOL: [ ]  
 [TELO28]  
 [TELO16]

CONFIGURATION DESCRIPTION:  
 ARC 87-747 BASIC B C M F V2 V  
 ARC 87-747 BASIC B C M F V1 V

ELEVON: .000  
 AIRLON: .000  
 BDF LAP: .000  
 SPOBRK: 55.000  
 55.000

REFERENCE INFORMATION:  
 SREF: 2.4210 SQ.FT.  
 LREF: 14.2442  
 BREF: 28.1004  
 VREF: 32.3010  
 ZREF: .0000  
 SCALE: 11.2500

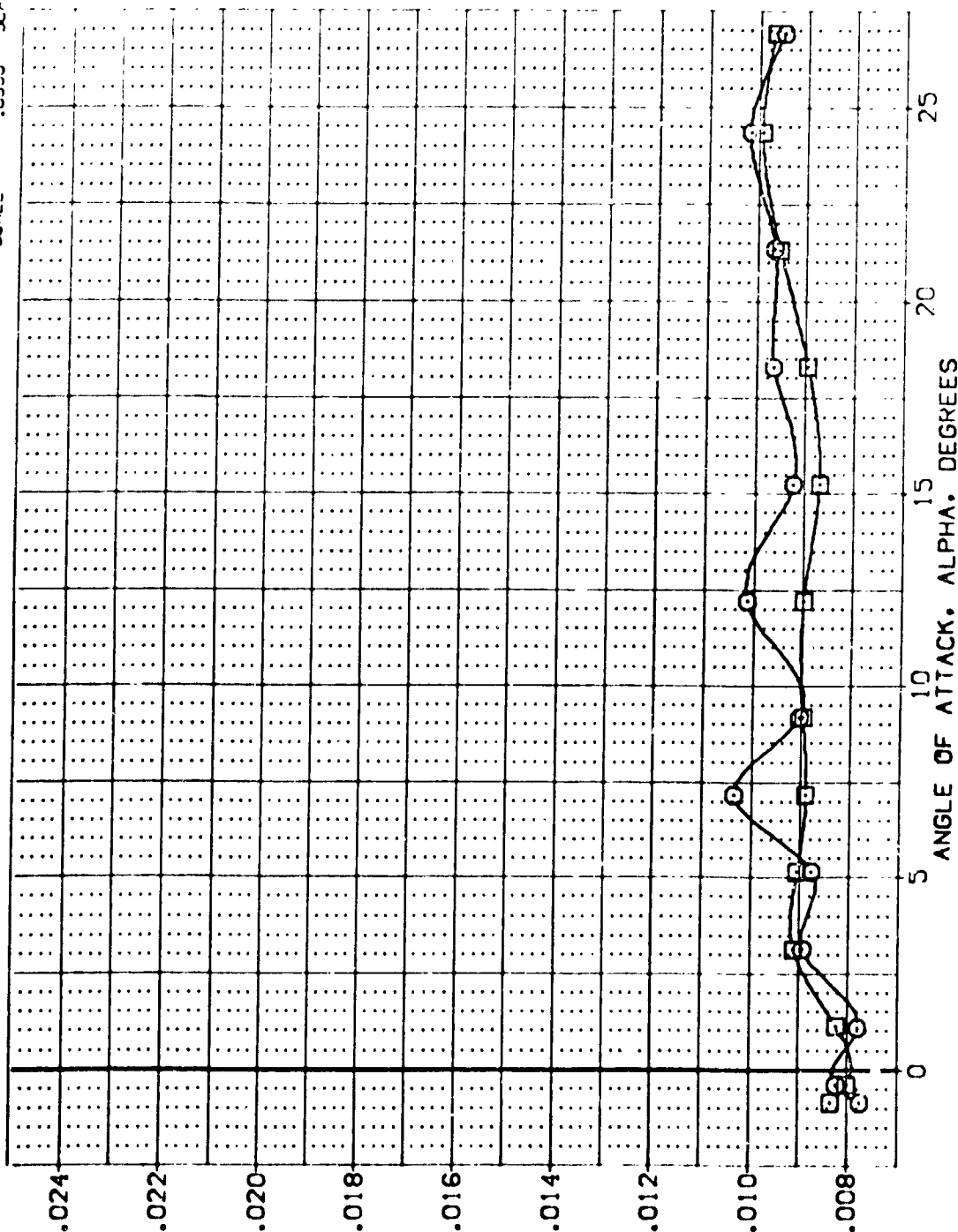


FIG. 6 WING MATRIX

(C)MACH = 3.50

DATA SET SYMBOL: [ ]  
 (TELO:16)  
 (TELO:16)

CONFIGURATION DESCRIPTION:  
 ARC 87-747 CAS3C B C M F V2 V  
 ARC 87-747 CAS3C B C M F V1 V

NON: RNVL  
 NON: RNVL

ELEVON: .000  
 AILRON: .000  
 BOFLAP: .000  
 SPDRK: .000  
 SPDRK: .000

REFERENCE INFORMATION:  
 SREF: 2.47  
 UREF: 14.2440  
 BREF: 20.1000  
 XREF: 32.3000  
 YREF: .0000  
 ZREF: .0000  
 SCALE: .0000

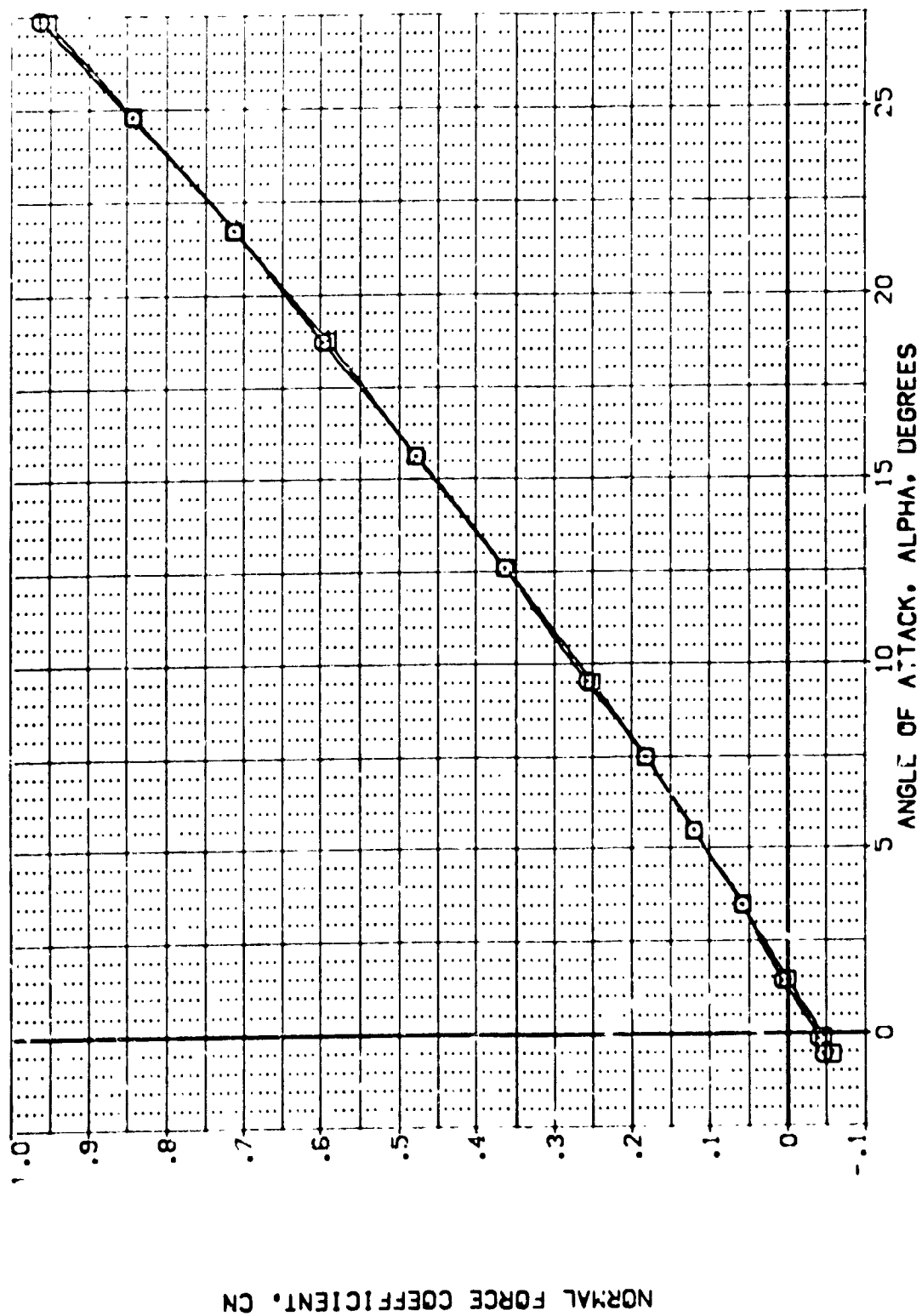


FIG. 6 WING MATRIX

(A)MACH = 2.50



DATA SET SYMBOL: CONFIGURATION DESCRIPTION: REFERENCE INFORMATION: SCALE: 1.0

ARC 87-747 BASIC B C M F V2 V NOM: RV/L

ARC 87-747 BASIC B C M F V1 V NOM: RV/L

ELEVON: .000

AILERON: .000

EDFLAP: .000

SPOBRK: 55.000

SPRFE: 2.4210

SPRFE: 14.3440

SPRFE: 30.0004

SPRFE: 31.5510

SPRFE: 11.7500

SCALE: 10.000

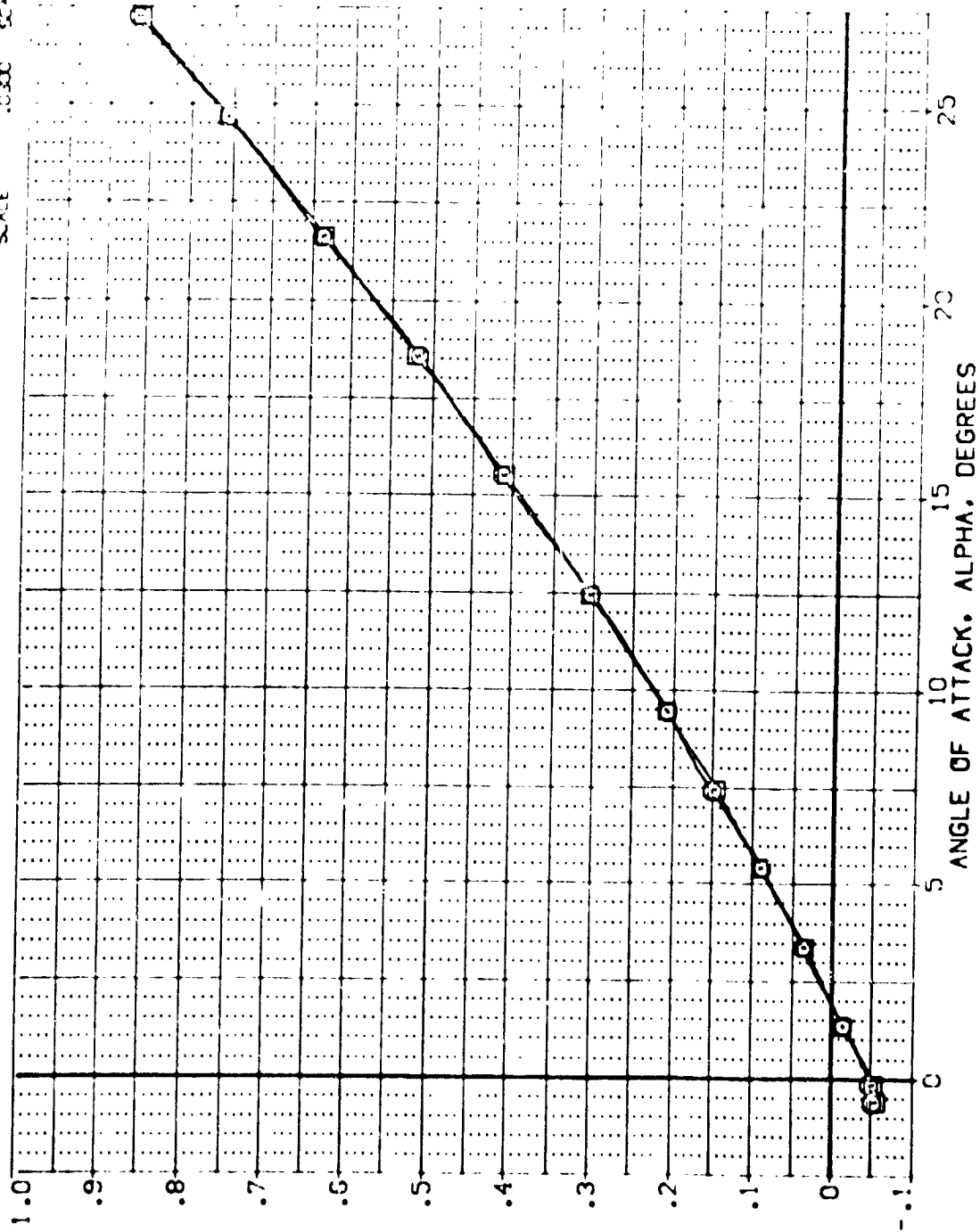
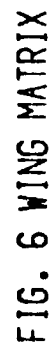


FIG. 6 WING MATRIX

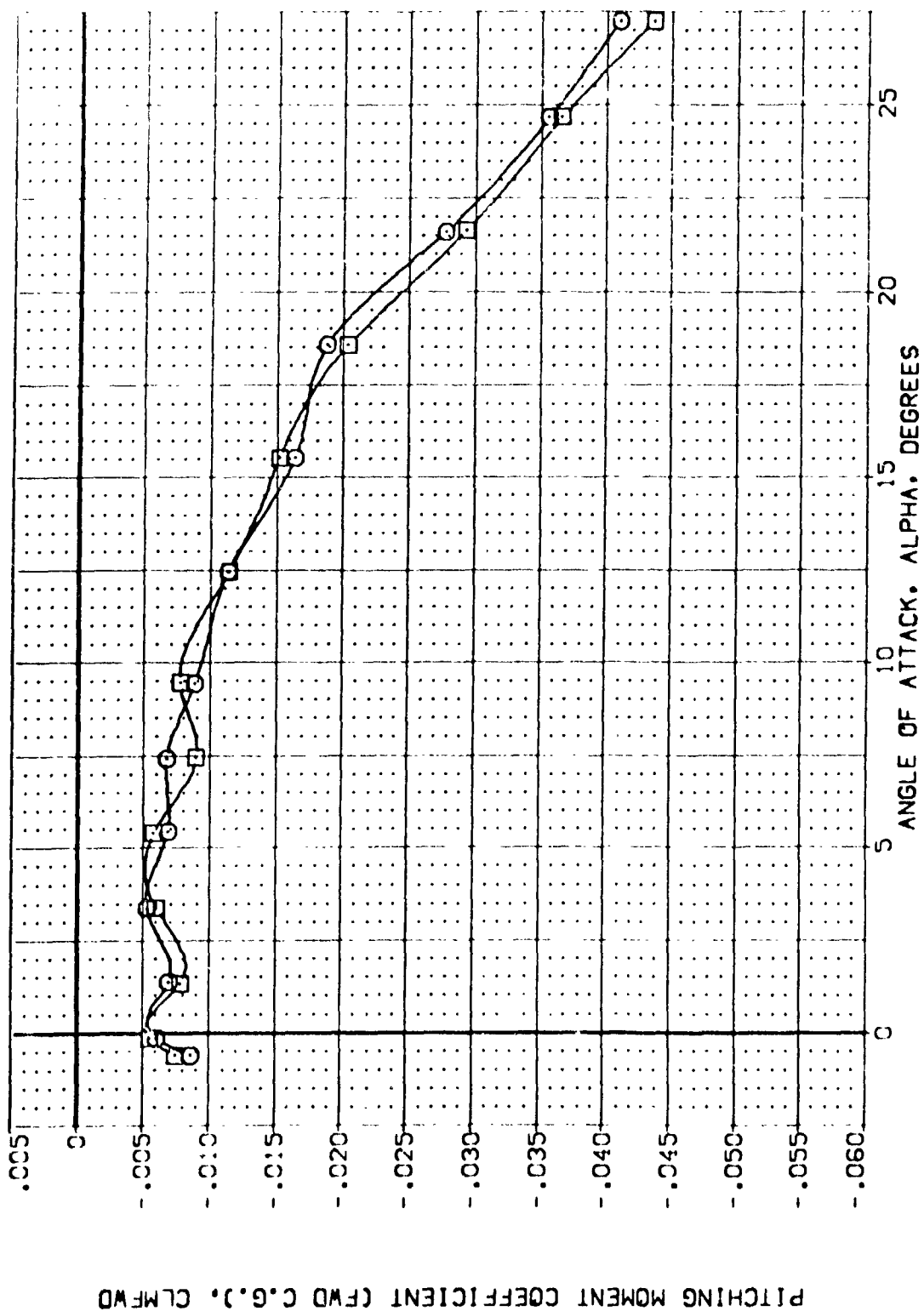
(8) VACH = 3.00



REFERENCE INFORMATION	
SREF	2.4210 SQ.FT.
LREF	14.2440
DREF	28.1004
WREF	32.3010
YREF	66.00
ZREF	11.2320
SCALE	.0300 SCALE



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[illegible]

DATA SET SYMBOL: [TELO28] [TELO16] CONFIGURATION DESCRIPTION: ARC 87-747 DASSC B C M F V2 V NOM: RNVL  
 REFERENCE INFORMATION: SREF 2.4210 SC.FT. 14.7440  
 SREF 28.1004  
 SREF 37.3010  
 SREF 11.7500  
 SREF 0.3000  
 SCALE

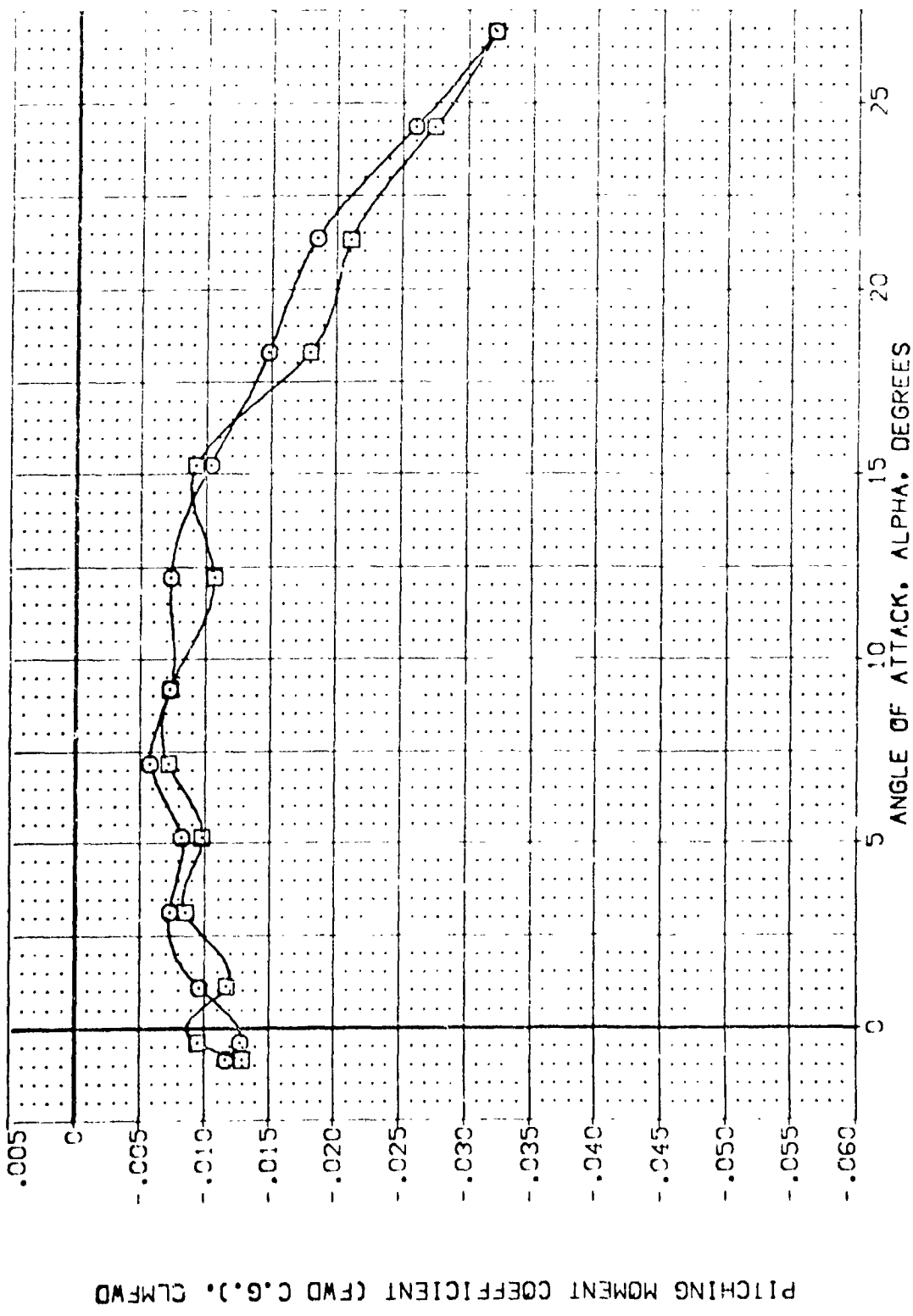


FIG. 6 WING MATRIX

[C]MAC = 3.50

DATA SET SYMBOL: 34 COURAGE DESCRIPTION: 87-74 CASAC B C M F V2 V NOM: RNVL  
 (ELEV) 0 87-74 CASAC B C M F V1 V NOM: RNVL  
 REFERENCE INFORMATION:  
 SREF 2.4210 SQ.FT.  
 LREF 14.244C IN.  
 BREF 28.1004 IN.  
 XMRP 32.3010 IN.  
 YMRP .0000 IN.  
 ZMRP 11.2500 IN.  
 SCALE .0300 SCALE

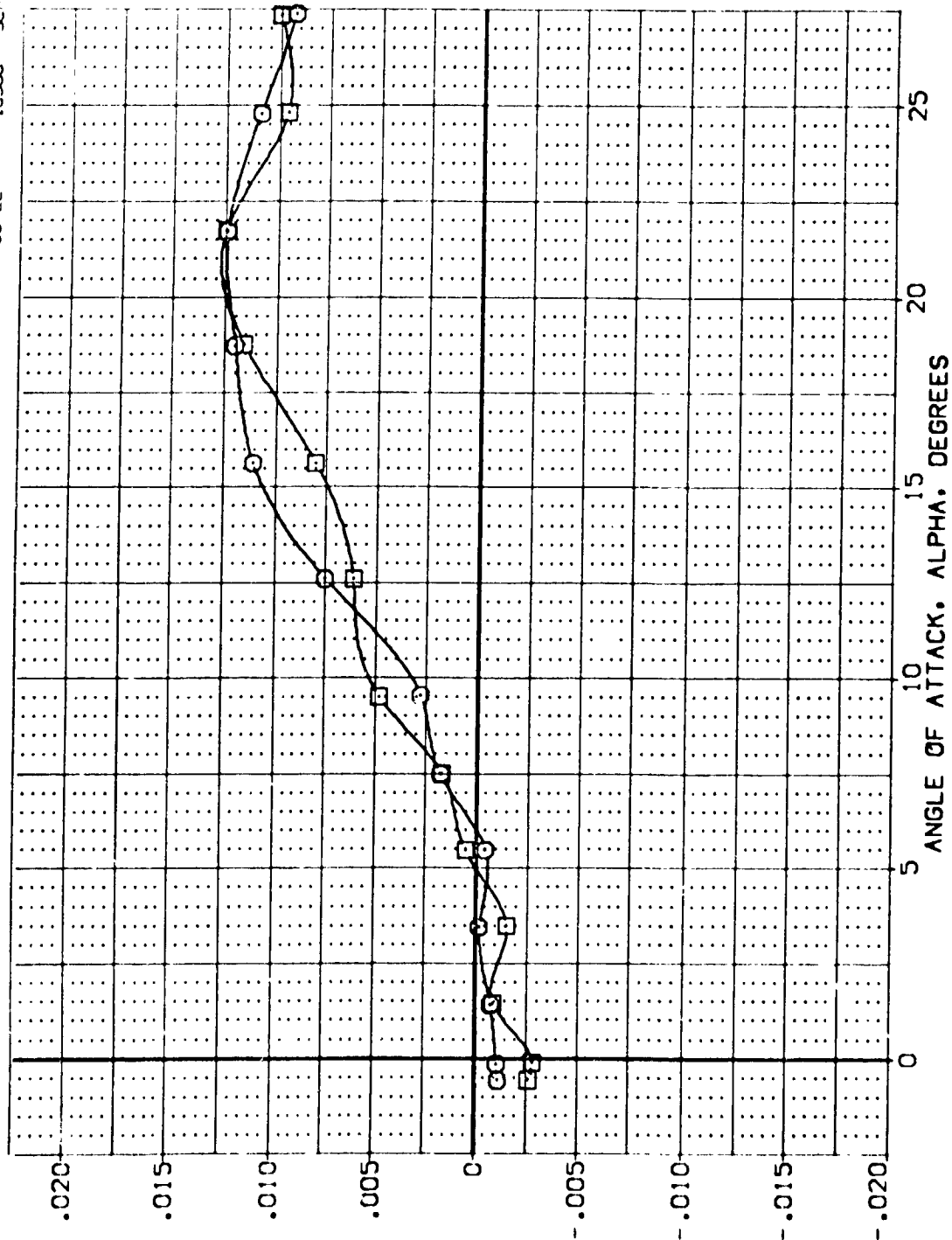


FIG. 6 WING MATRIX

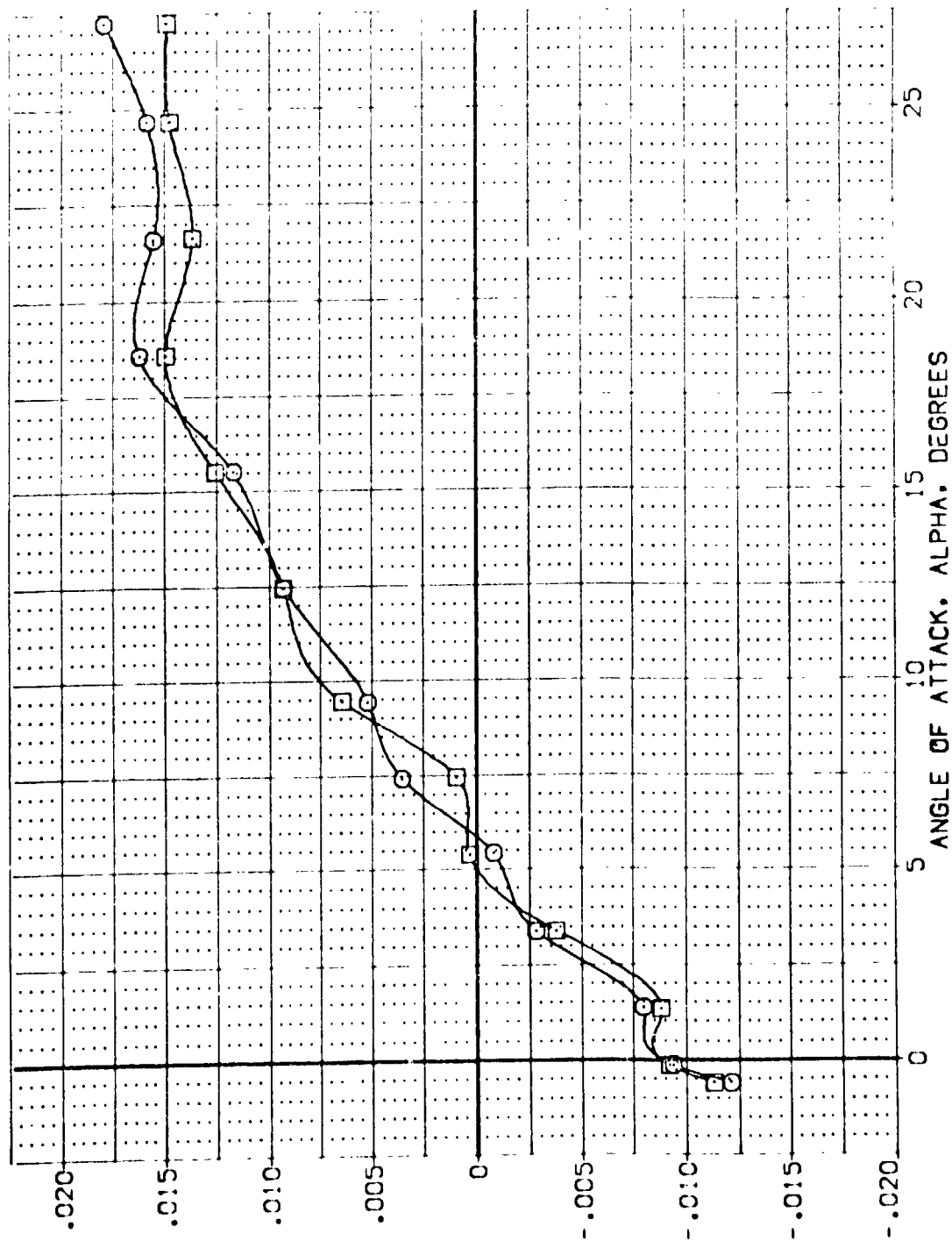
(A)MACH = 2.50

DATA SET SYMBOL: [ ]  
 [TELO28]  
 [TELO16]

CONFIGURATION DESCRIPTION:  
 ARC 87-747 CAS3C B C M F V2 V  
 ARC 87-747 CAS3C B C M F V1 V

ELEVON: .000  
 AILERON: .000  
 BOFLAP: .000  
 SPODBK: 55.000  
 55.000

REFERENCE INFORMATION:  
 SREF: 2.4210 50.17.  
 LREF: 14.2440  
 BREF: 28.1004  
 XREF: 32.3010  
 YREF: 11.2500  
 ZREF: .0300  
 SCALE



PITCHING MOMENT COEFFICIENT (Cm), CLMAFT

FIG. 6 WING MATRIX  
 (3)MACH = 3.00







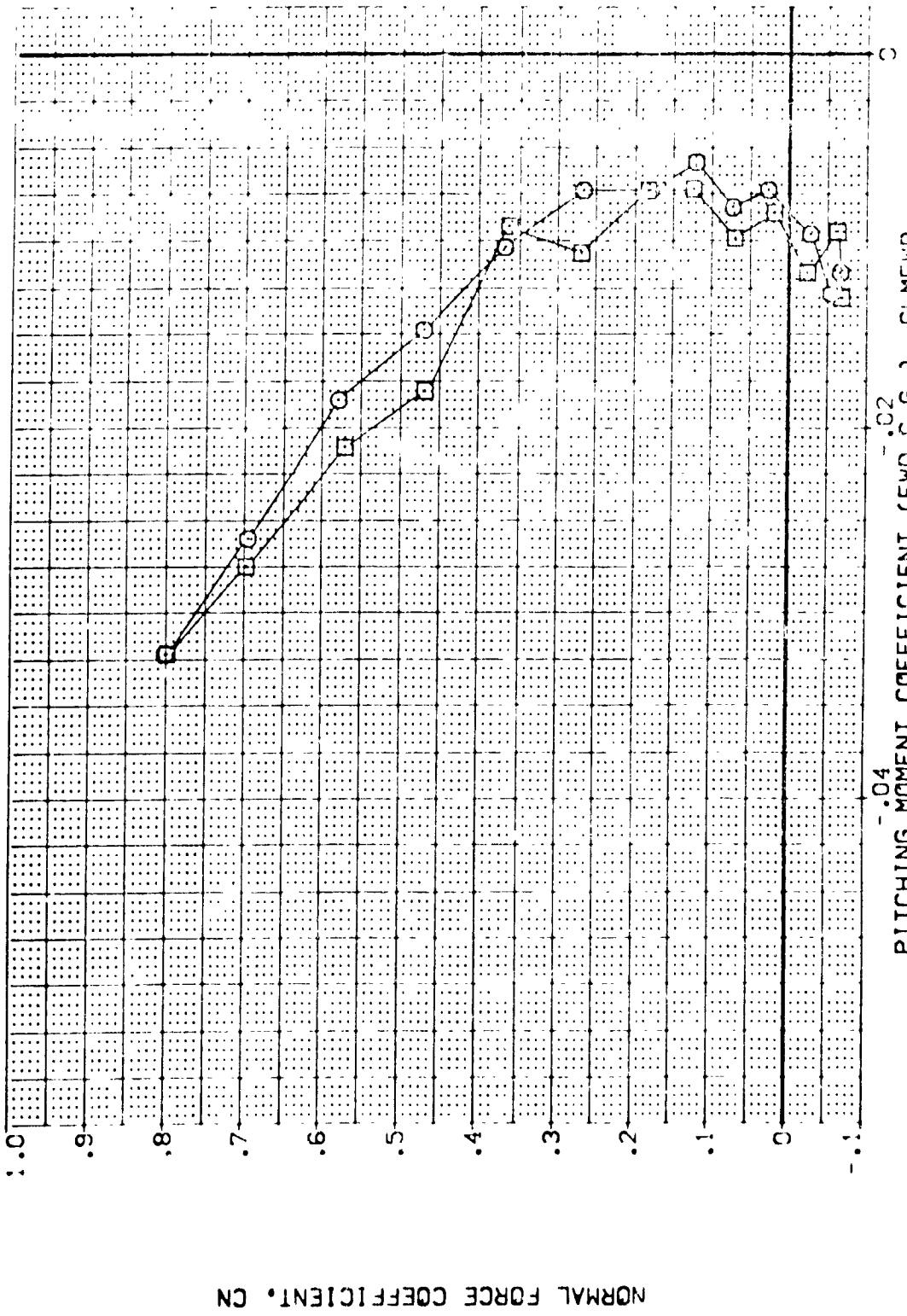


DATA SET SYMBOL: 9  
 [TELO:78]  
 [TELO:16]

CONFIGURATION DESCRIPTION:  
 ARC 87-747 BASIC B C M F V2 V  
 ARC 87-747 BASIC B C M F V1 V

ELEVON: .000  
 ALLIRON: .000  
 BOFLAP: .000  
 SPOBRK: 55.000  
 55.000

REFERENCE INFORMATION:  
 SPREF: 2.4210 SQ.FT.  
 LPREF: 14.2440  
 BRPF: 28.1004  
 X-REF: 30.3010  
 Y-REF: .0000  
 Z-REF: .7500  
 SCALE: 0.300



PITCHING MOMENT COEFFICIENT (FWD C.G.). CLMFWD

FIG. 6 WING MATRIX

(C)MACH = 3.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOILER	REFERENCE INFORMATION
(TELO28)	ARC 87-747 QAS3C B C M F V2 V	.000	.000	.000	55.000	SREF 2.4210 SC.F.T.
(TELO16)	ARC 87-747 QAS3C B C M F V1 V	.000	.000	.000	55.000	LREF 14.2440
						BREF 28.1004
						XREF 32.3010
						YREF 11.7000
						ZREF 7.4000
						SCALE 1.0000

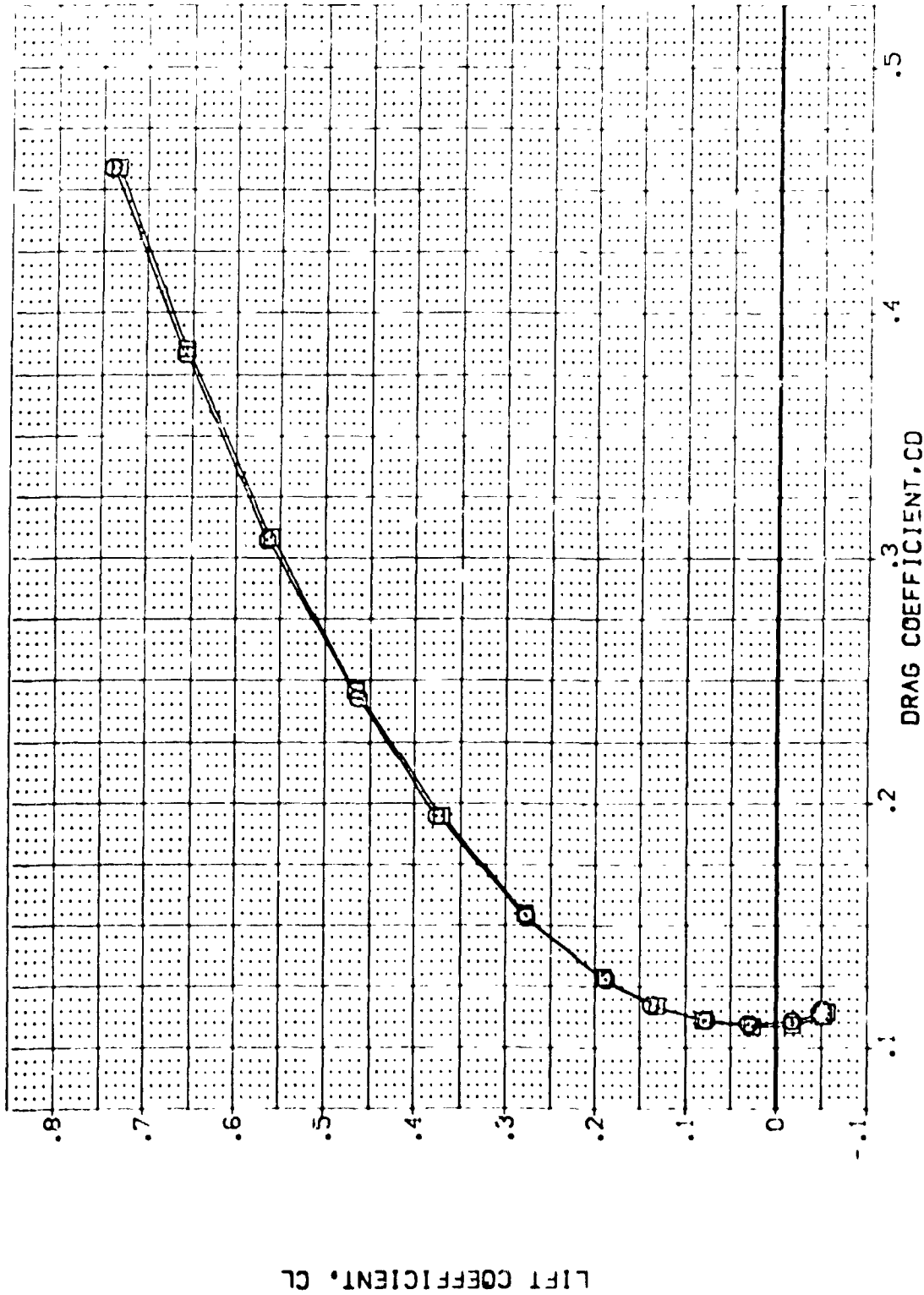


FIG. 6 WING MATRIX

(B)MACH = 3.00

DATA SET SYMBOL: 704131  
 [ELECT8] BASIC B C M F V2 V  
 [ELECT8] APC B7-74 CASOC B C M F V1 V

ELEVON AILRON BOFLAP SPOBRK  
 .000 .000 .000 55.000  
 .000 .000 .000 55.000

REFERENCE INFORMATION:  
 SREF 2.4210 SQ.FT.  
 LREF 14.7140  
 BREF 78.1000  
 XMRP 32.3000  
 YMRP 0.0000  
 ZMRP 11.2500  
 SCALE .0300

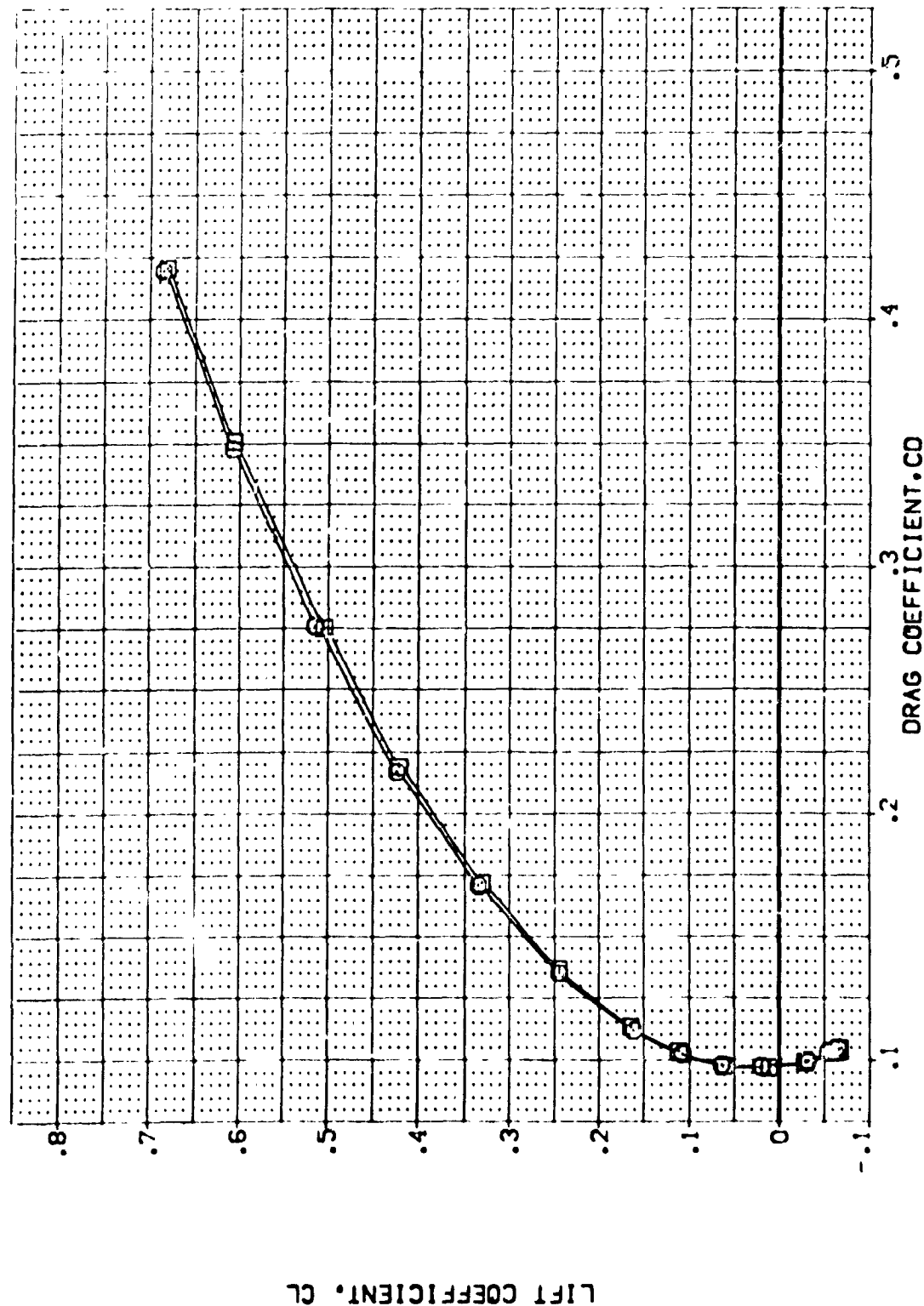


FIG. 6 WING MATRIX  
 (C)MACH = 3.50

DATA SET SYMBOL: [ ] CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C H F V2 V NON: RUL  
 [ ] ELEV: 0.000 BOF LAP: 0.000 SPOBRK: 55.000 55.000  
 REFERENCE INFORMATION: SREF: 2.4213 50.FT.  
 LREF: 14.2443 77.7777  
 DREF: 28.1004 77.7777  
 XMRP: 32.3013 77.7777  
 YMRP: 0.0000 77.7777  
 ZMRP: 11.2500 77.7777  
 SCALE: 0.0300 77.7777

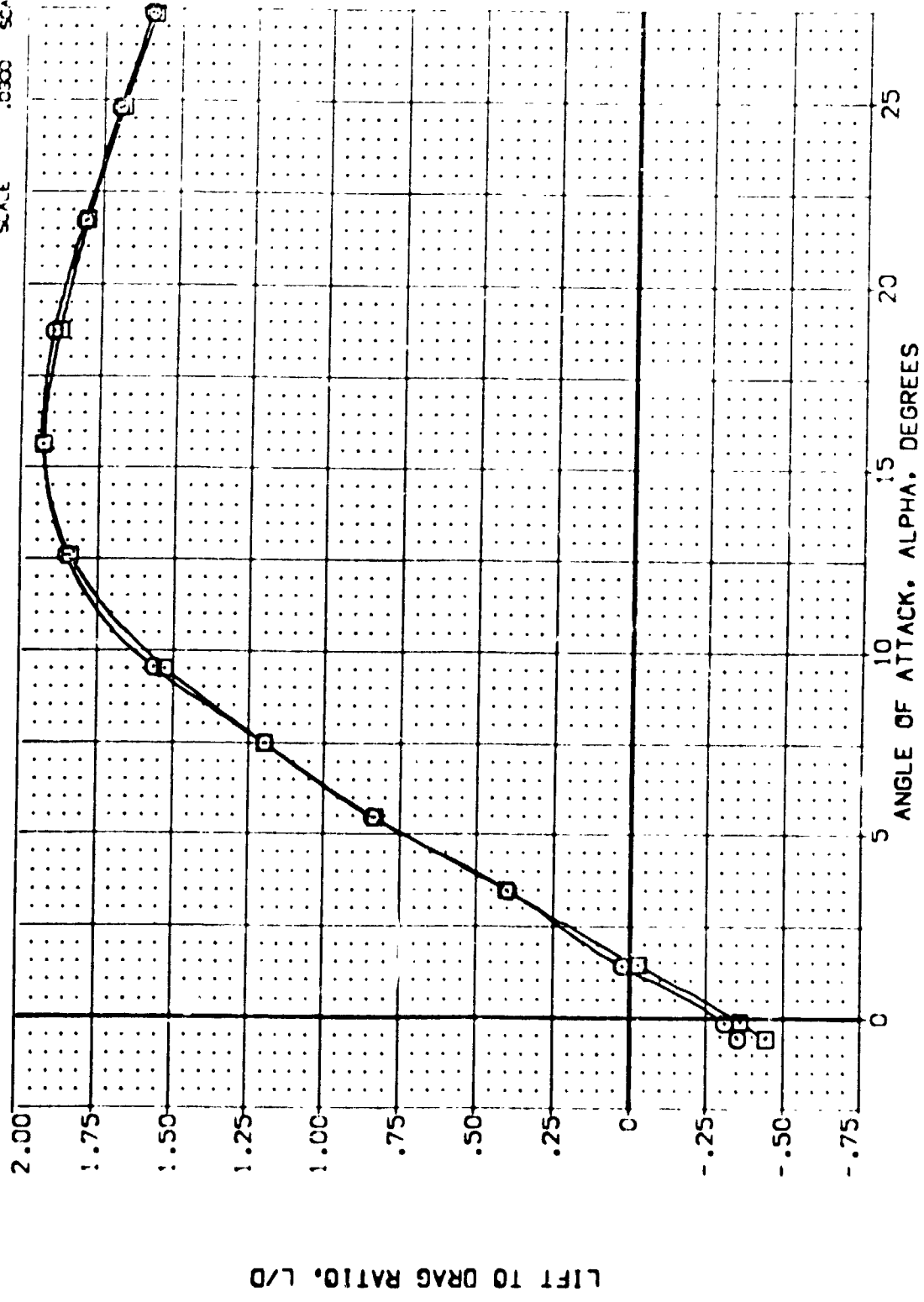


FIG. 6 WING MATRIX  
 (A)MACH = 2.50

DATA SET SYMBOL: CONF 11: RATION DESCRIPTION: REFERENCE INFORMATION: SCALE

CONF	DESCRIPTION	REFERENCE	SCALE
ARC 87-747	CLASSIC B C M F V2 V	SPREF 2.42 0	50.00
ARC 87-747	CLASSIC B C M F V1 V	LRPF 14.24 0	55.00
		BRPF 28.10 0	55.00
		XRPF 32.30 0	55.00
		YRPF 11.25 0	55.00
		ZRPF 11.25 0	55.00
		SCALE 11.25 0	55.00

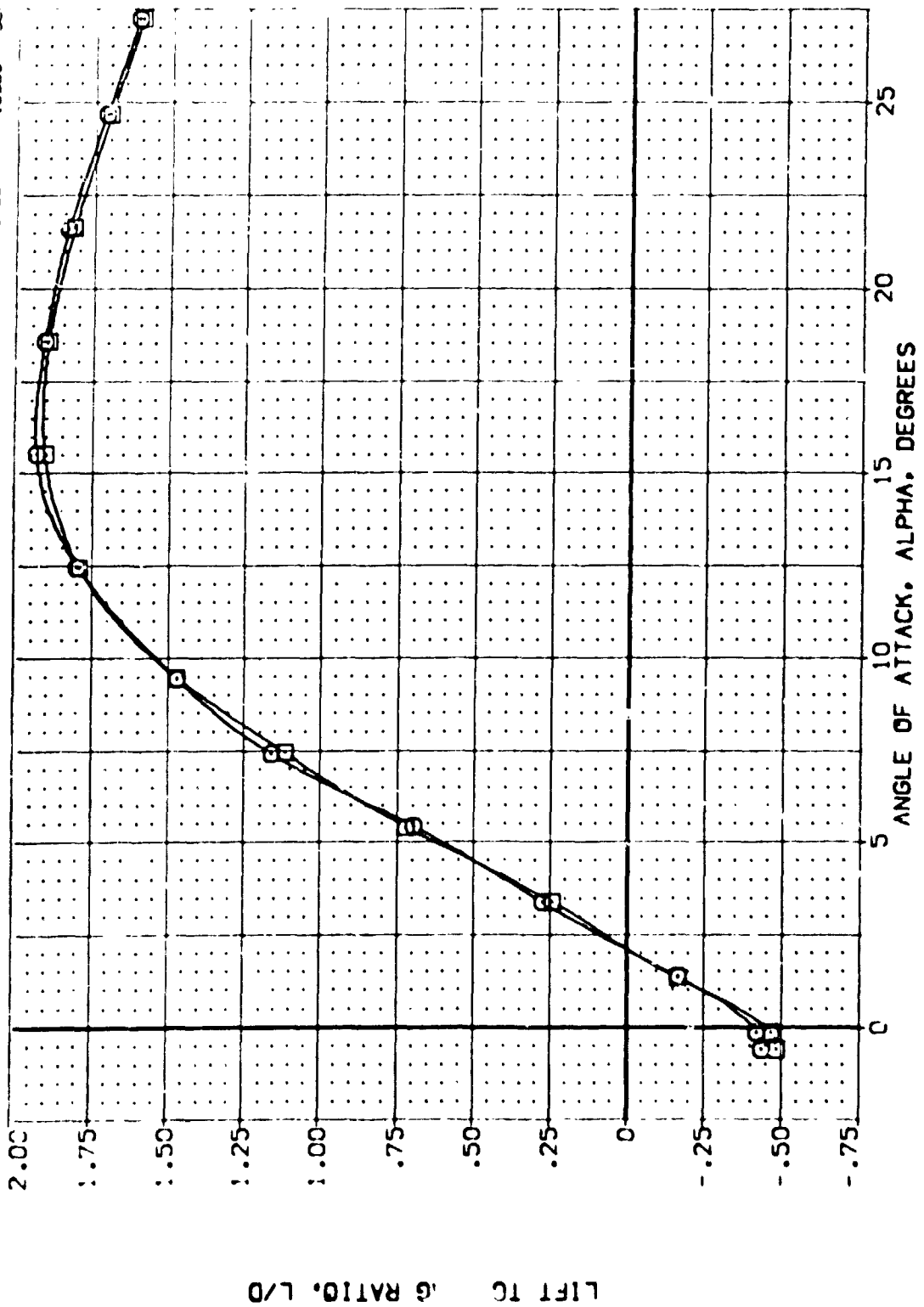


FIG. 6 WING MATRIX  
(8)MACH = 3.00



DATA SET SYMBOL: (1E028) (1E016)

CONFIGURATION DESCRIPTION: ARC 87-747 QAS3C B C M F V2 V, ARC 87-747 QAS3C B C M F V1 V

REFERENCE INFORMATION: SREF 2.4210 SQ.FT., LREF 14.2440 IN., BREF 28.1004 IN., XMRP 32.3010 IN., YMRP .0000 IN., ZMRP 11.2500 IN., SCALE .0300

ELEVON: .000, .000, .000

AILERON: .000, .000, .000

30F LAP: .000, .000, .000

SPDRBK: 55.000, 55.000, 55.000

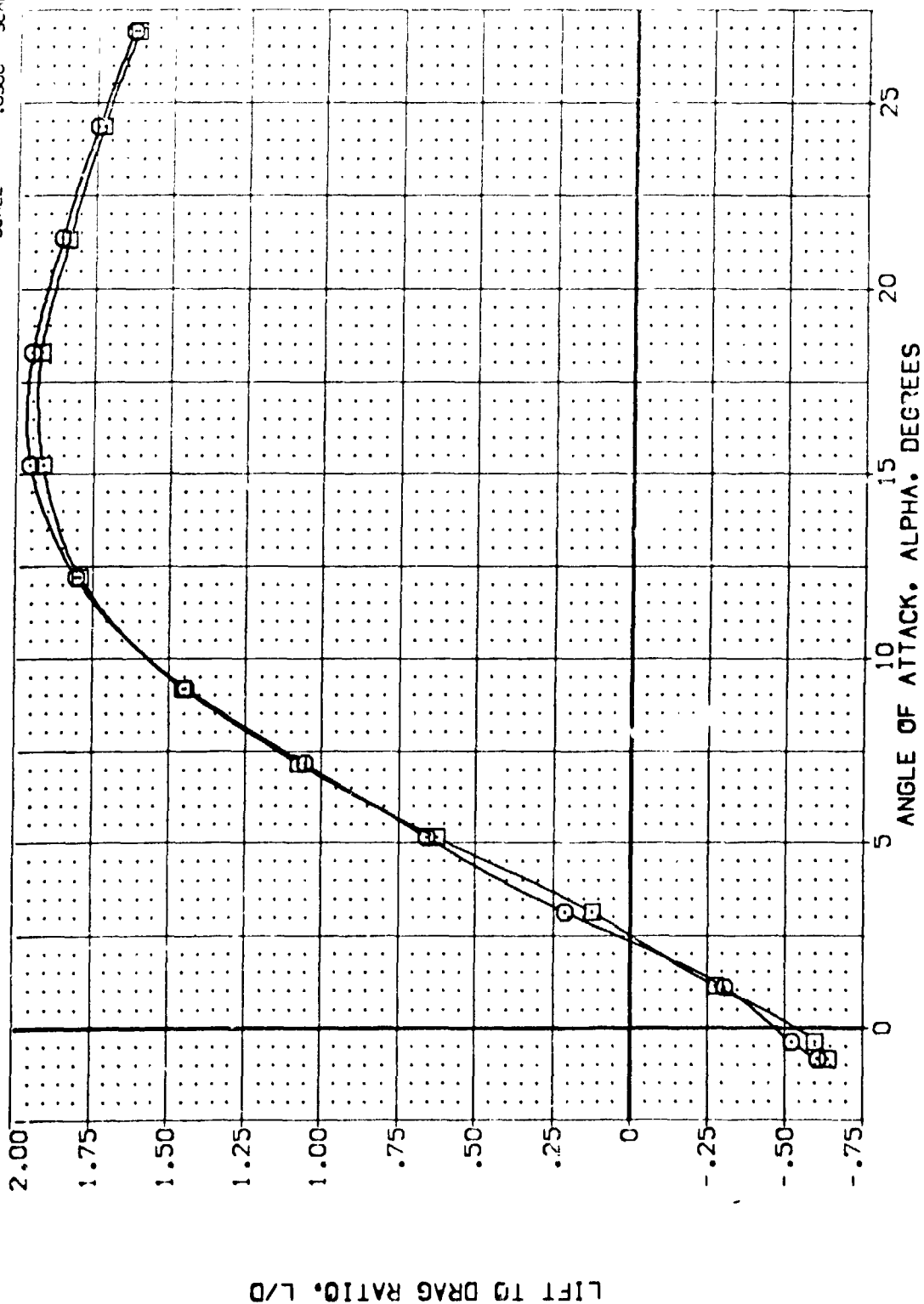


FIG. 6 WING MATRIX  
(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

(AELC) Q ARC 87-747 CAS3C B C M F V2 V NOM. RNVL

(AELC) Q ARC 87-747 CAS3C B C M F V1 V NOM. RNVL

SREF 2.4210 SC

LRREF 14.2410

BRREF 28.1000

XRREF 32.3010

YMRP 11.7500

ZMRP 11.7500

SCALE .0300

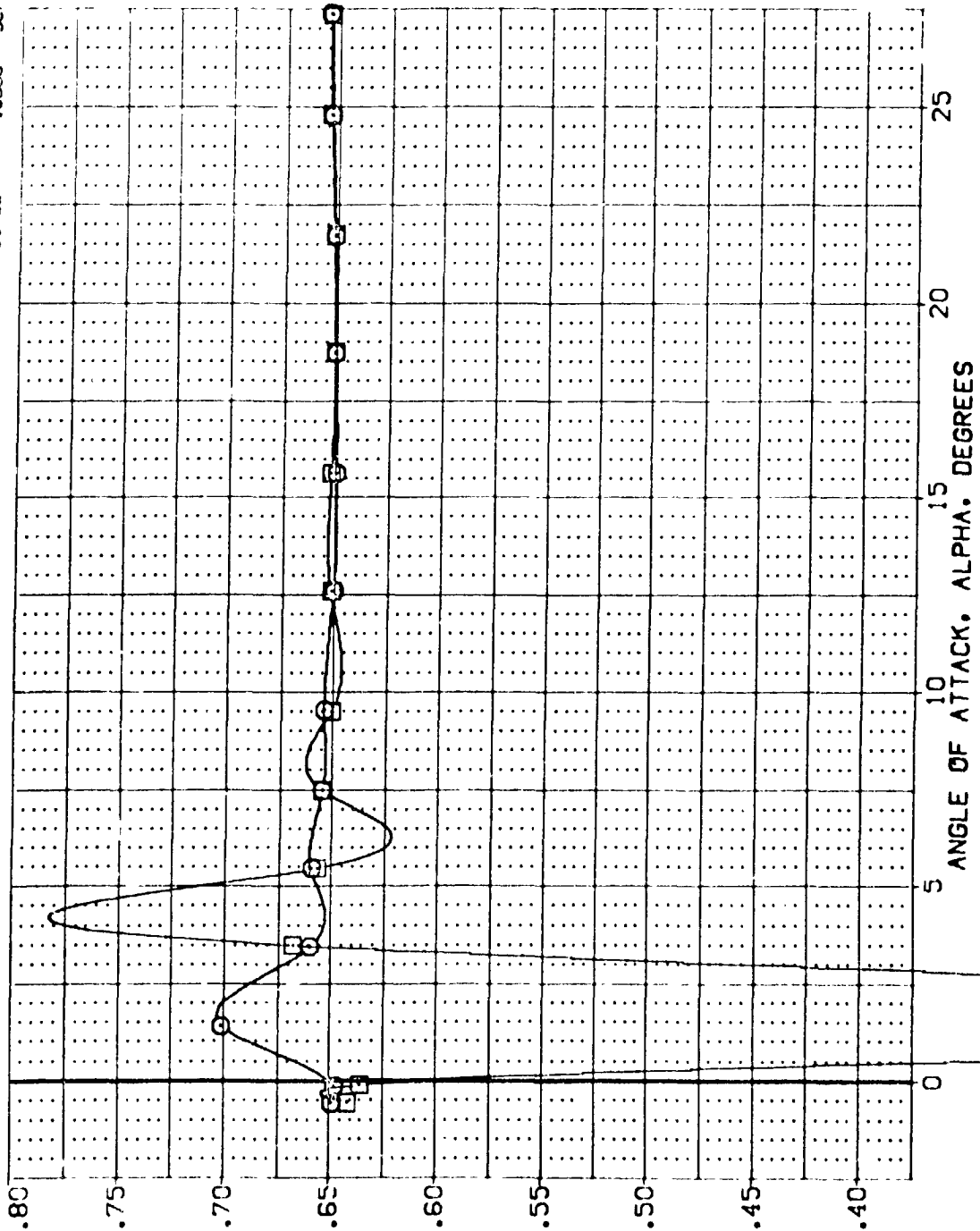


FIG. 6 WING MATRIX  
(A)MACH = 2.50

DATA SET SYMBOL: 9  
 [AEL028]  
 [AEL016]

CONFIGURATION DESCRIPTION  
 ARC 87-747 OAS3C B C M F V2 V NOM: RN/L  
 ARC 87-747 OAS3C B C M F V1 V NOM: RN/L

ELEVON AILRON BDELAP SPOBRK  
 .000 .000 .000 .000  
 .000 .000 .000 .000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.7440  
 BREF 78.1004  
 XMRD 32.0010  
 YMRD .0000  
 ZMRD 11.75  
 SCALE .0300

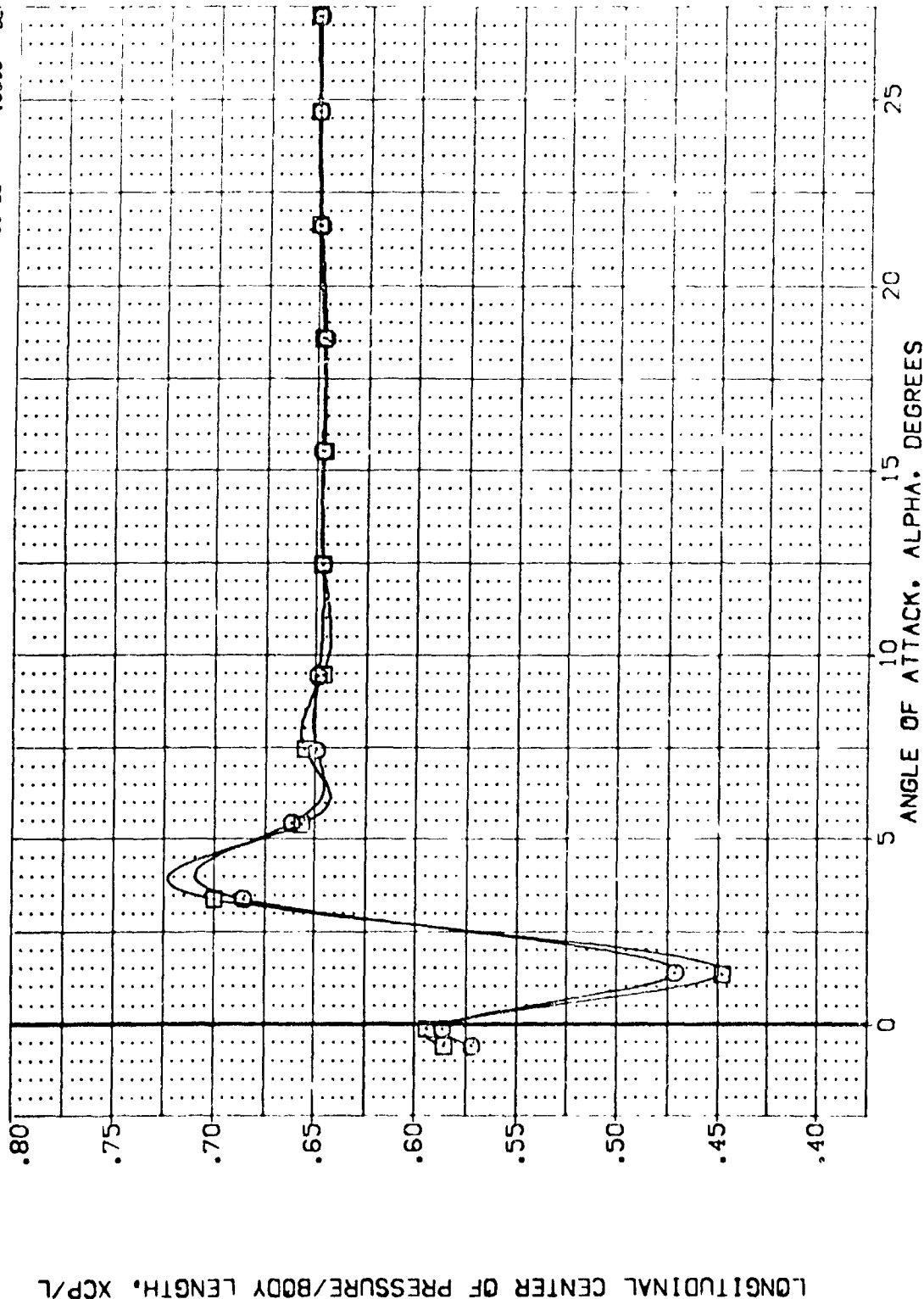


FIG. 6 WING MATRIX

(B)MACH = 3.00

DATA SET SYMBOL: (AEL005) (AEL015)

CONFIGURATION DESCRIPTION: ARC 87-747 CAS30 B C M F V2 V NOM: RN/L ARC 87-747 CAS30 B C M F V1 V NOM: RN/L

ELEVON: .000 .000

AILERON: .000 .000

BOFLAP: .000 .000

SPDBRK: 55.000 55.000

REFERENCE INFORMATION: SREF: 2.4210 SQ.FT. XREF: 14.2440 YREF: 28.0004 XMRP: 32.5000 YMRP: .0000 SCALE: 11.7500 .0300

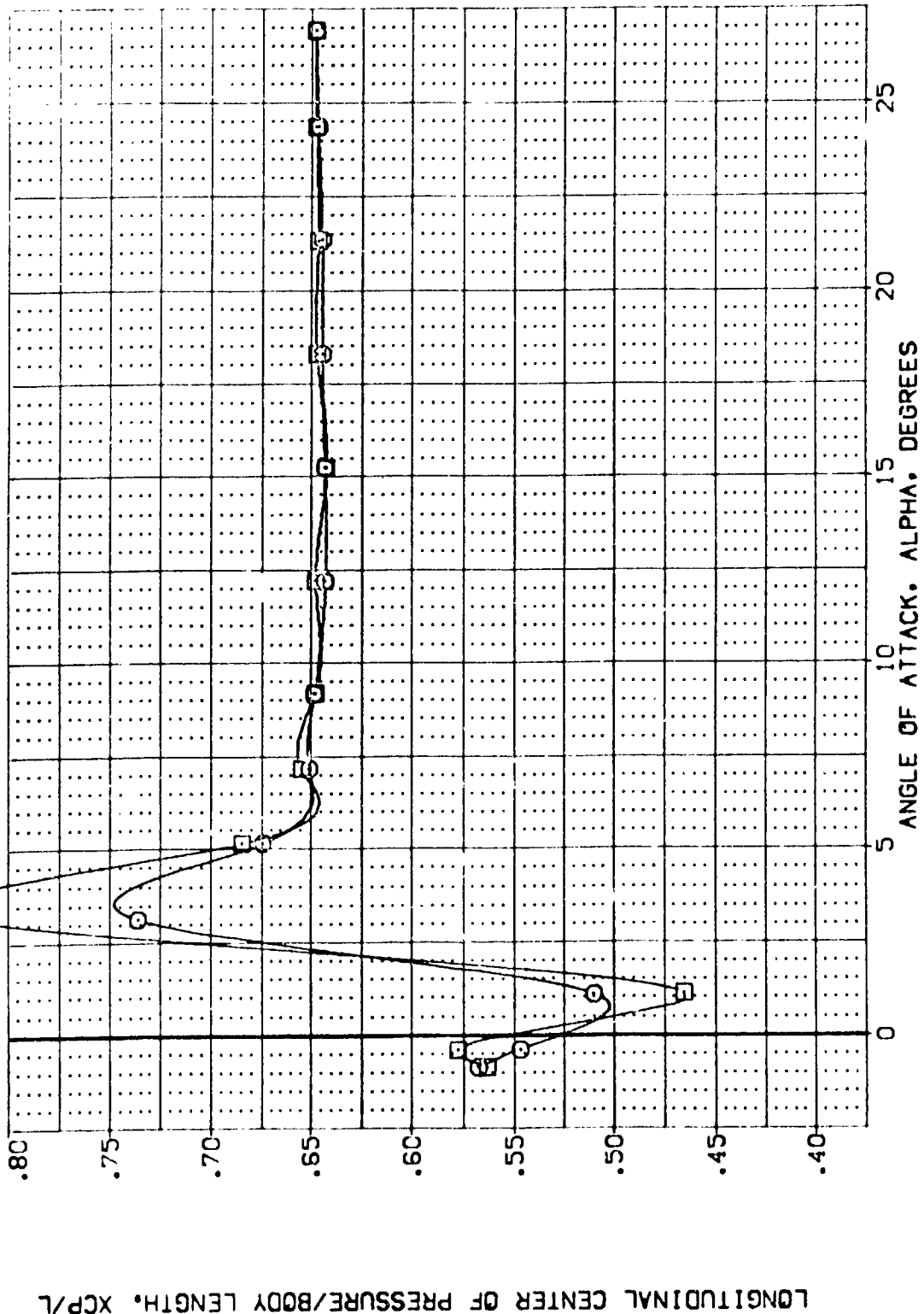


FIG. 6 WING MATRIX

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	EDFLAP	SPDBRK	REFERENCE INFORMATION
(TEL003)	ARC 87-747 OAS3C B C M F V1 V	15.000	.000	-11.700	55.000	SREF 2.4710 SQ.FT.
(TEL011)	ARC 87-747 OAS3C B C M F V1 V	.000	.000	-11.700	55.000	REF 14.2440
(TEL002)	ARC 87-747 OAS3C B C M F V1 V	-10.000	.000	-11.700	55.000	BREF 28.1004
(TEL019)	ARC 87-747 OAS3C B C M F V1 V	-20.000	.000	-11.700	55.000	XMRP 32.3000
(TEL023)	ARC 87-747 OAS3C B C M F V1 V	-40.000	.000	-11.700	55.000	YMRP 32.3000
						ZMRP 11.2500
						SCALE .0300

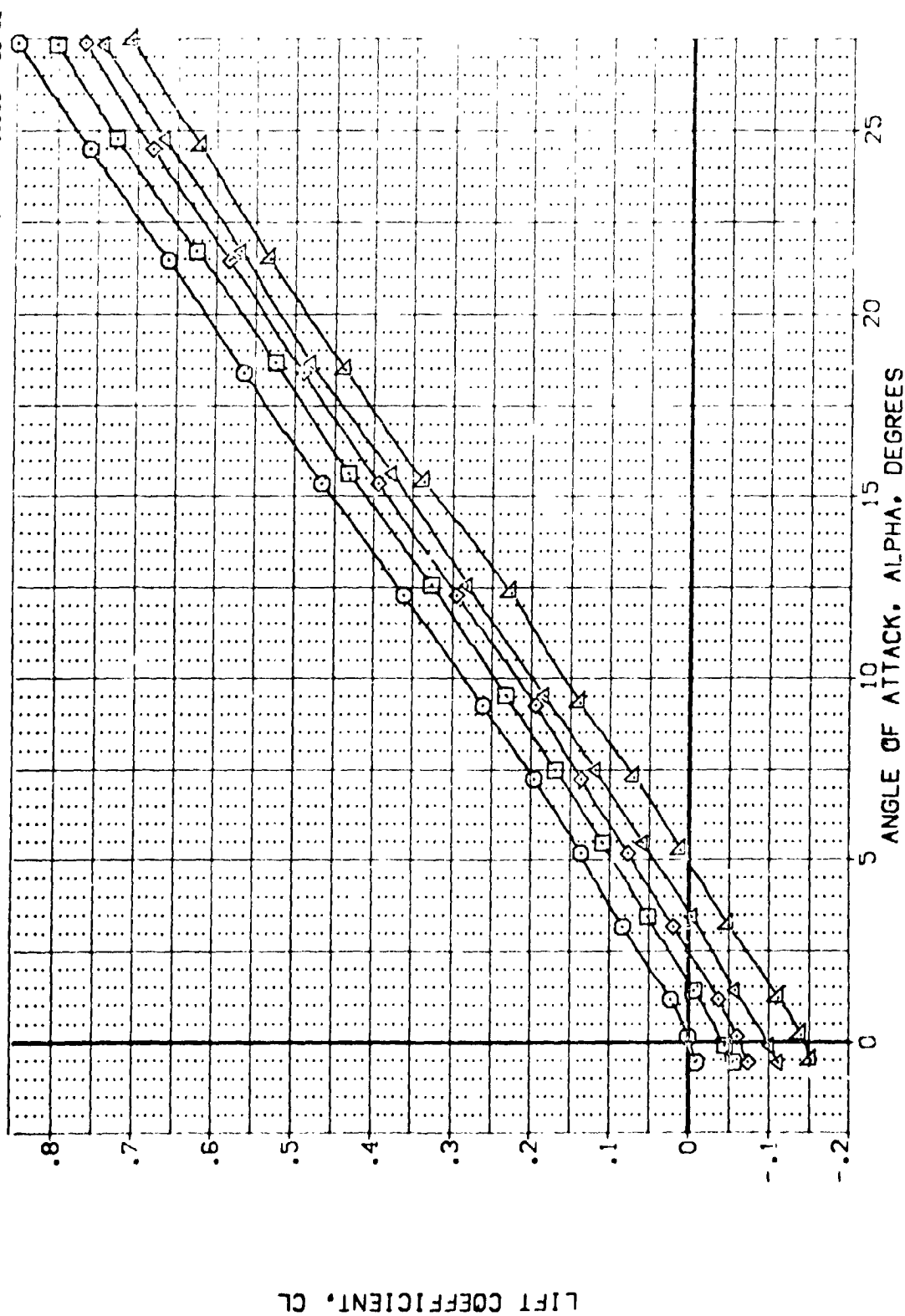


FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPODBK	REFERENCE INFORMATION
[TELOC3]	ARC 87-74" BASIC B C M F V	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[TELOC1]	ARC 87-74" BASIC B C M F V	.000	.000	-11.700	55.000	LREF 14.2142
[TELOC2]	ARC 87-74" BASIC B C M F V	-10.000	.000	-11.700	55.000	BREF 28.1004
[TELOC18]	ARC 87-74" BASIC B C M F V	-20.000	.000	-11.700	55.000	XREF 32.3010
[TELOC23]	ARC 87-74" BASIC B C M F V	-40.000	.000	-11.700	55.000	ZREF 11.2300
						SCALE .0300 IN.

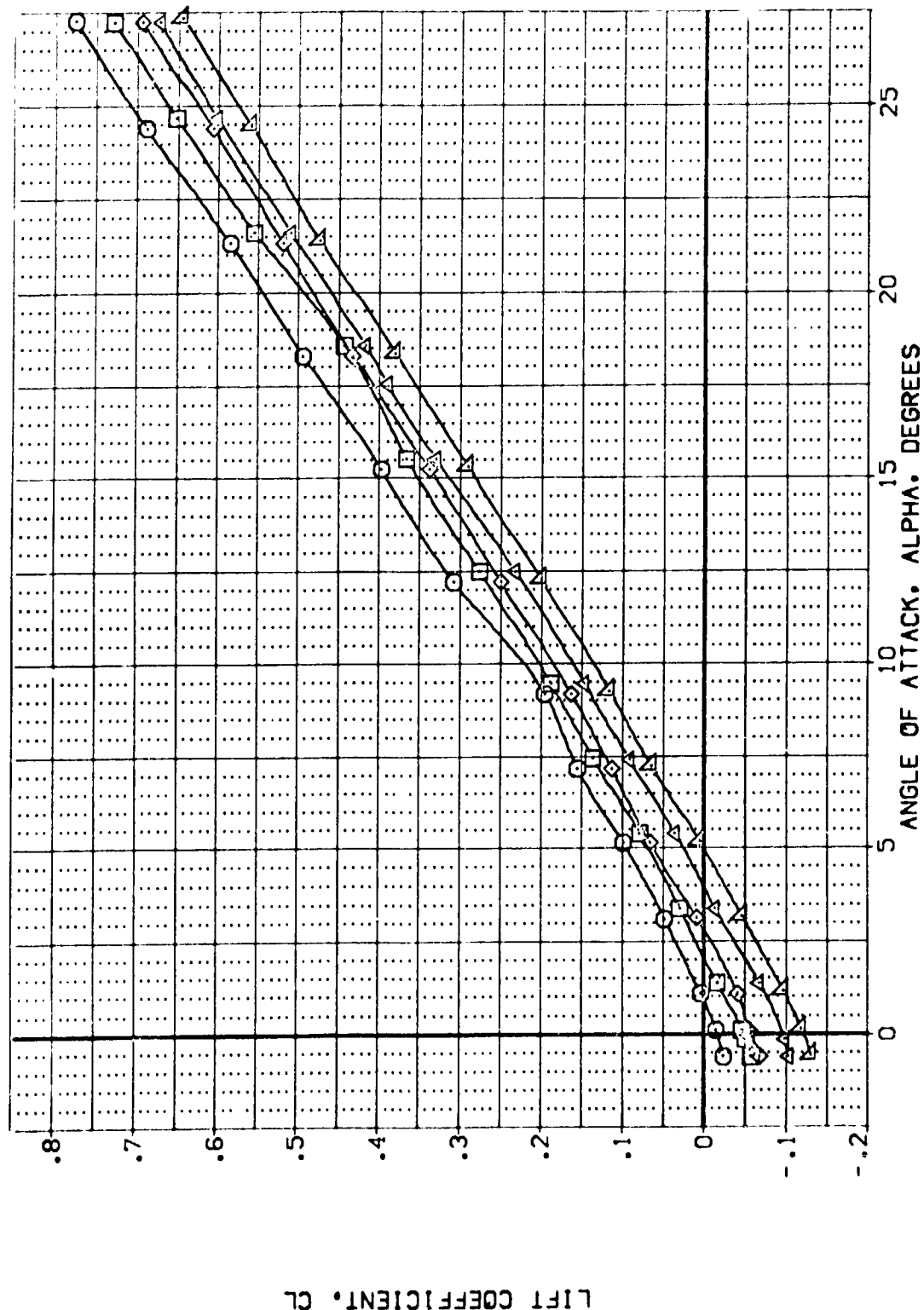


FIG. 7 ELEVON EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO:	RV/L	ELEVON	ATLIRON	BOELAP	SPDBRK	REFERENCE INFORMATION
[TEL003]	ARC 87-747 DA53C B C M F VI V	NO:	RV/L	15.000	.000	-11.700	55.000	SREF 2.4210 SC.FY.
[TEL011]	ARC 87-747 DA53C B C M F VI V	NO:	RV/L	.000	.000	-11.700	55.000	LREF 14.2640 N.
[TEL002]	ARC 87-747 DA53C B C M F VI V	NO:	RV/L	-10.000	.000	-11.700	55.000	BREF 78.004 N.
[TEL019]	ARC 87-747 DA53C B C M F VI V	NO:	RV/L	-20.000	.000	-11.700	55.000	XREF 32.3010 N.
[TEL023]	ARC 87-747 DA53C B C M F VI V	NO:	RV/L	-40.000	.000	-11.700	55.000	ZMRP .0000 N.
								SCALE 11.7000
								SCALE .0300

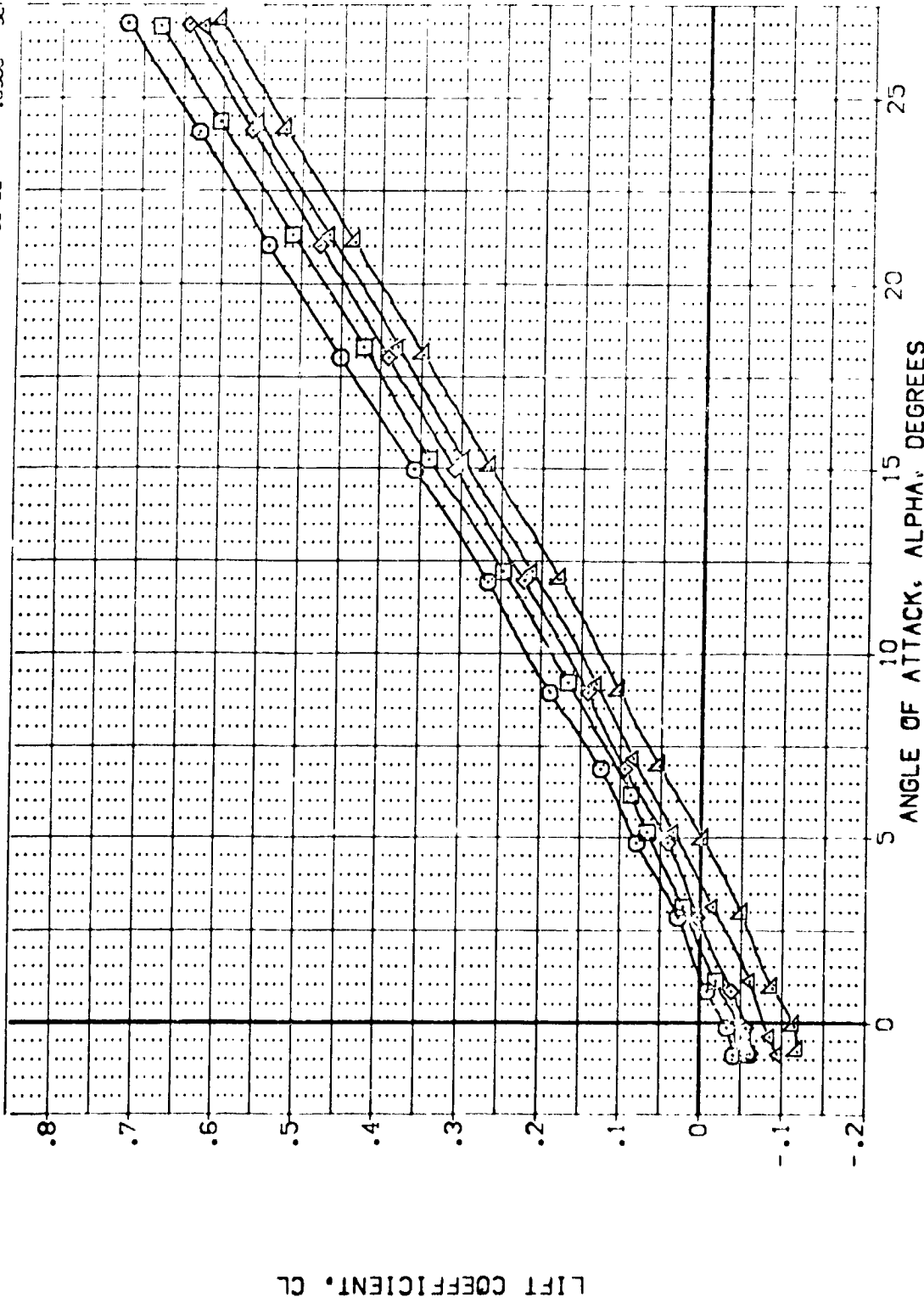


FIG. 7 ELEVON EFFECTS

(CJ)MACH = 3.50

DATA SET 01-80	CONFIGURATION DESCRIPTION	ELEVON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[TELOC3]	ARC 87-747 OAS3C B C M F V	15.000	.000	-11.700	55.000	SREF 2.42 0 50. FT.
[TELOC1]	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	55.000	LRA 14.2440
[TELOC2]	ARC 87-747 OAS3C B C M F V	-10.000	.000	-11.700	55.000	BREF 28.1000
[TELOC3]	ARC 87-747 OAS3C B C M F V	-20.000	.000	-11.700	55.000	YMPP 32.3000
[TELOC4]	ARC 87-747 OAS3C B C M F V	-40.000	.000	-11.700	55.000	ZMPP 11.2500
						SCALE .0300

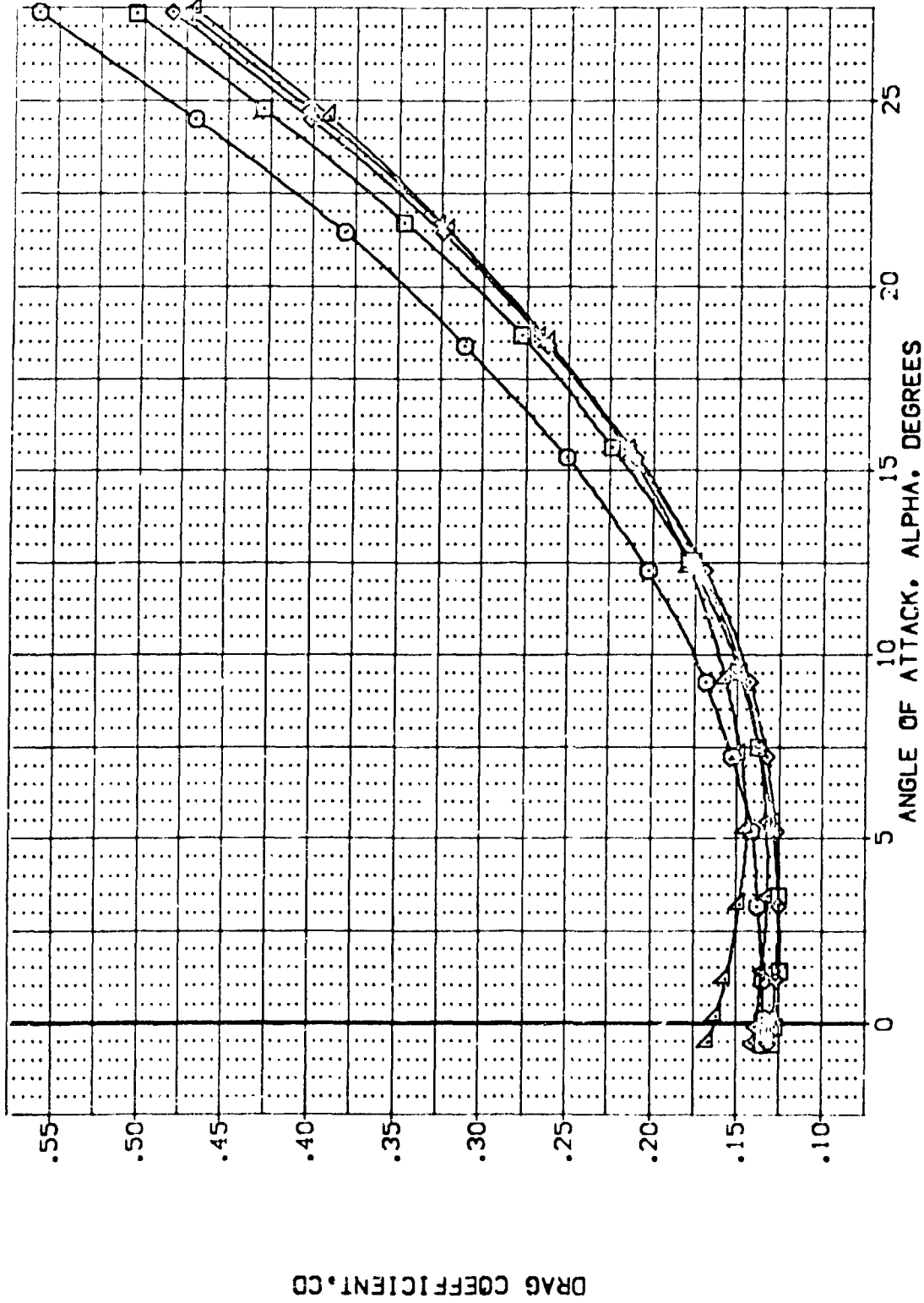


FIG. 7 ELEVON EFFECTS

(M)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPDRBK	REFERENCE INFORMATION
[TELO03]	ARC 87-747 OAS3C B C M F VI V	15.000	.000	-11.700	55.000	SREF 2.4210 SC.FT.
[TELO11]	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	55.000	LREF 14.2440
[TELO02]	ARC 87-747 OAS3C B C M F VI V	-10.000	.000	-11.700	55.000	BREF 28.1004
[TELO19]	ARC 87-747 OAS3C B C M F VI V	-20.000	.000	-11.700	55.000	XVREF 32.3010
[TELO73]	ARC 87-747 OAS3C B C M F VI V	-40.000	.000	-11.700	55.000	ZVREF 11.2500
						SCALE .0300

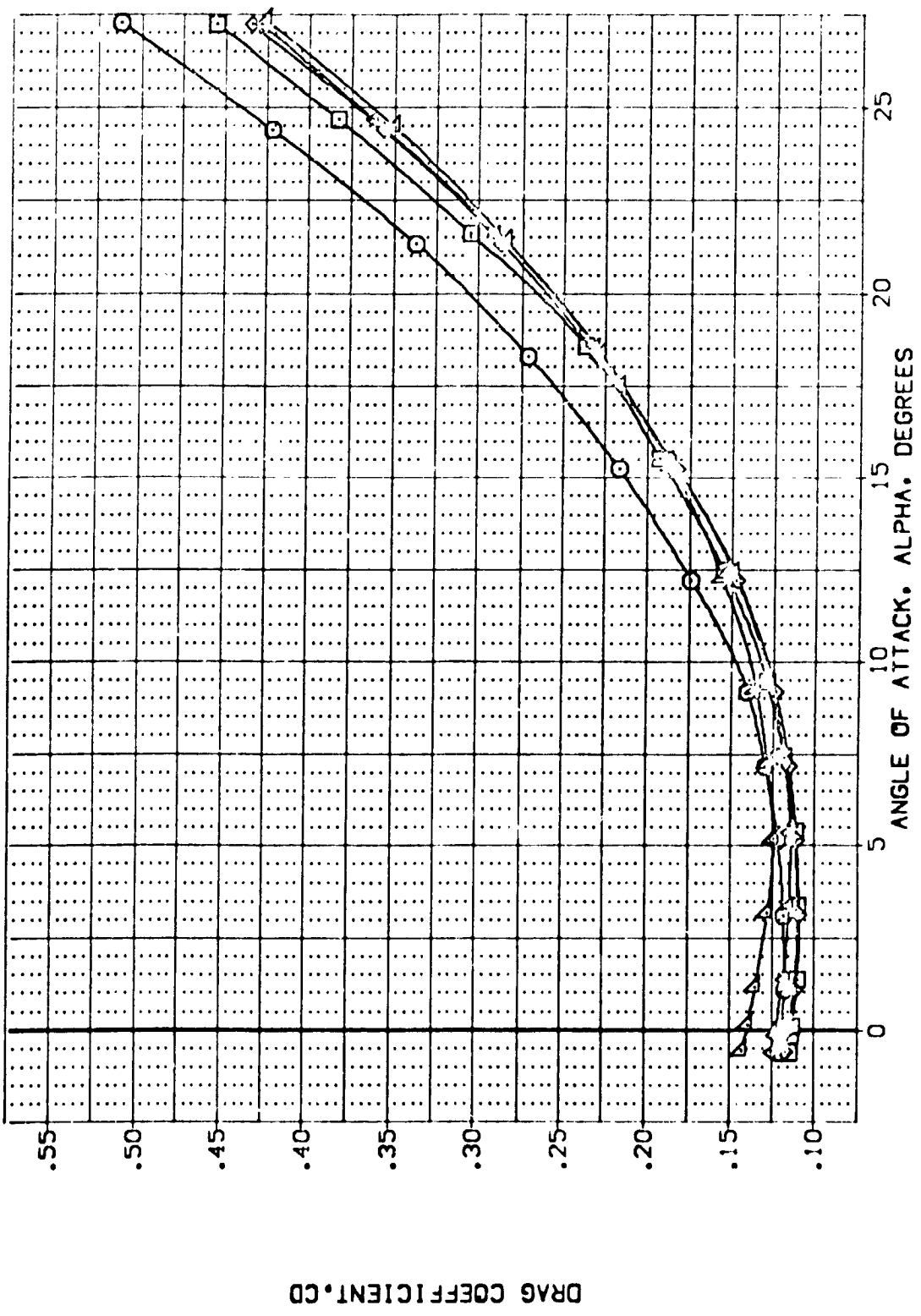


FIG. 7 ELEVON EFFECTS  
(B)MACH = 3.00

DATA SET SYMBOL    COEFFICIENT    ION DESCRIPTION    ELEVON    AIRLON    BDLAP    SPDBRK    REFERENCE INFORMATION

DATA SET SYMBOL	COEFFICIENT	ION DESCRIPTION	ELEVON	AIRLON	BDLAP	SPDBRK	REFERENCE INFORMATION
EL003	0.00	ARC 87-247 CAS3C B C M F V	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
EL001	0.00	ARC 87-247 CAS3C B C M F V	0.000	.000	-11.700	55.000	LREF 14.2440
EL002	0.00	ARC 87-247 CAS3C B C M F V	-10.000	.000	-11.700	55.000	BREF 28.1000
EL009	0.00	ARC 87-247 CAS3C B C M F V	-20.000	.000	-11.700	55.000	XREF 37.3010
EL023	0.00	ARC 87-247 CAS3C B C M F V	-40.000	.000	-11.700	55.000	YREF 46.5020
							ZREF 55.7000
							SCALE .0300

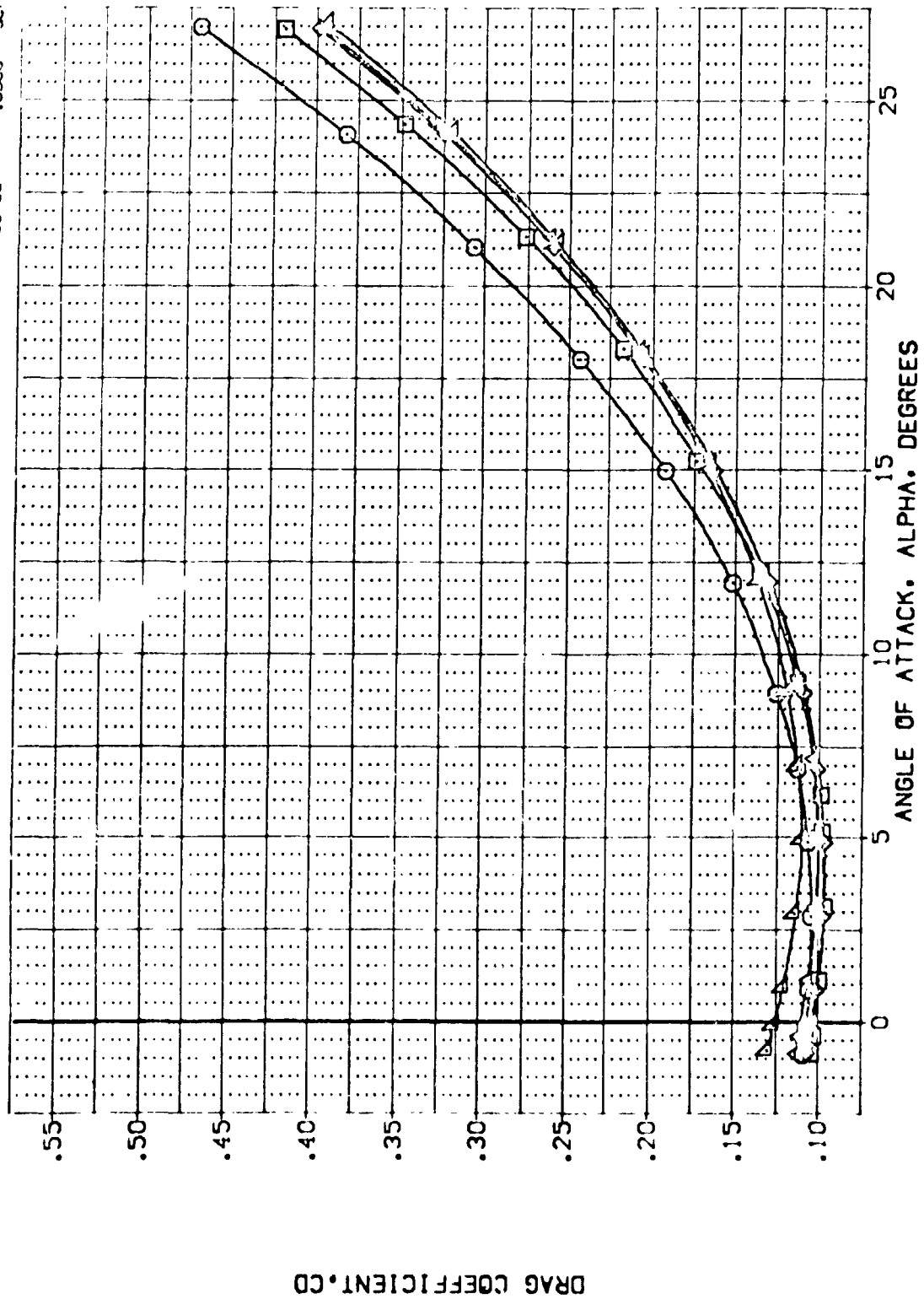


FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF. NO.	ELEVON	AILERON	BOFLAP	SPDRM	REFERENCE INFORMATION
TEL003	ARC 87-747 BAS3C B C M F VI	1	15.000	.000	-11.700	55.000	SREF 2.4210
TEL011	ARC 87-747 BAS3C B C M F VI	2	15.000	.000	-11.700	55.000	LREF 14.2440
TEL002	ARC 87-747 BAS3C B C M F VI	3	-10.000	.000	-11.700	55.000	BREF 28.1004
TEL019	ARC 87-747 BAS3C B C M F VI	4	-20.000	.000	-11.700	55.000	XMRP 32.3010
TEL023	ARC 87-747 BAS3C B C M F VI	5	-40.000	.000	-11.700	55.000	ZMRP 11.2500
							SCALE .0300

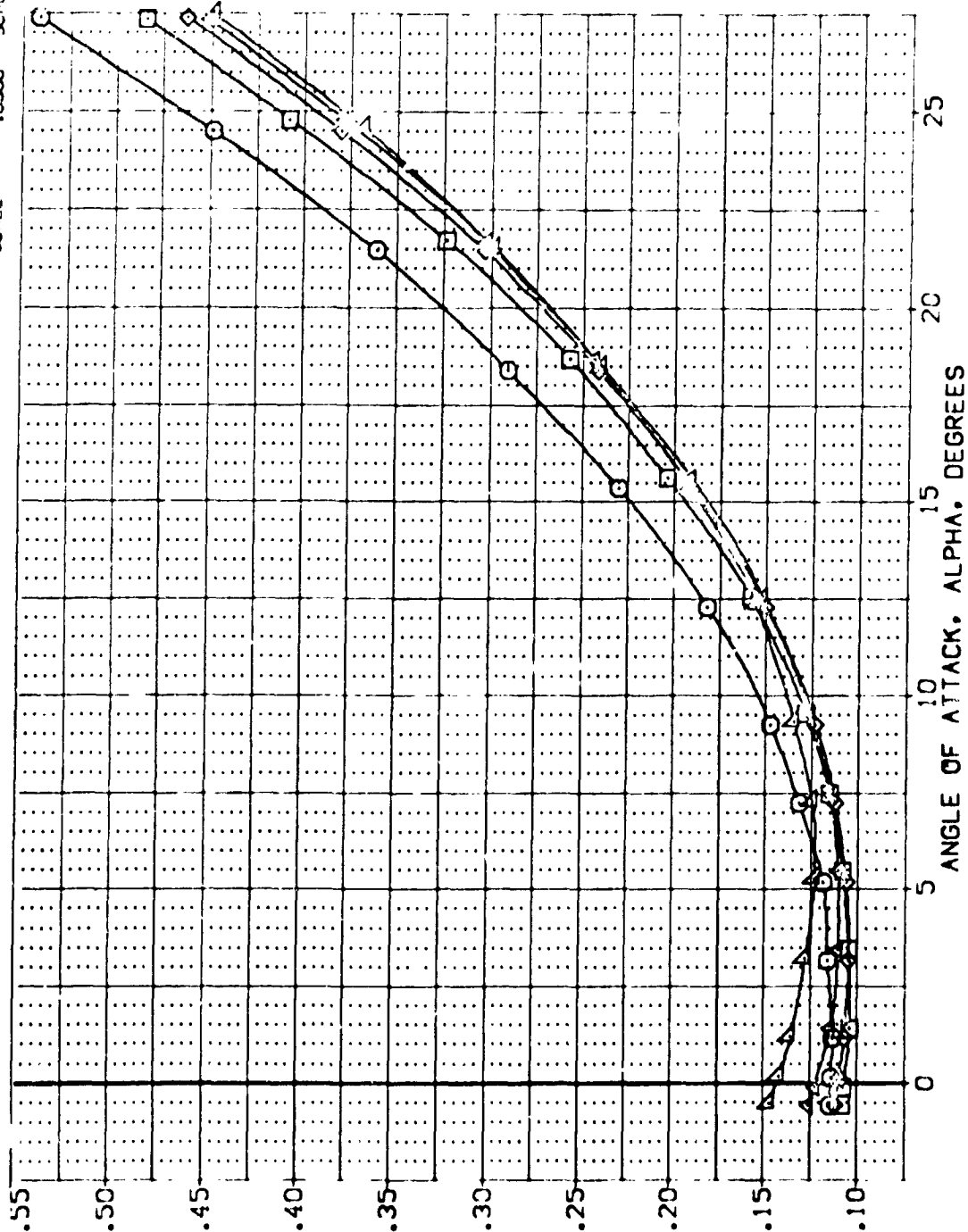


FIG. 7 ELEVON EFFECTS

(A) MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPDRBK	REFERENCE INFORMATION
ARC 87-747	DAS3C B C M F VI	15.000	.000	-11.700	55.000	SREF 2.4210 SC.F.
ARC 87-747	DAS3C B C M F VI	-10.000	.000	-11.700	55.000	LREF 14.2440
ARC 87-747	DAS3C B C M F VI	-20.000	.000	-11.700	55.000	BREF 28.0040
ARC 87-747	DAS3C B C M F VI	-40.000	.000	-11.700	55.000	XREF 32.0000
						ZREF 11.0000
						SCALE .0300

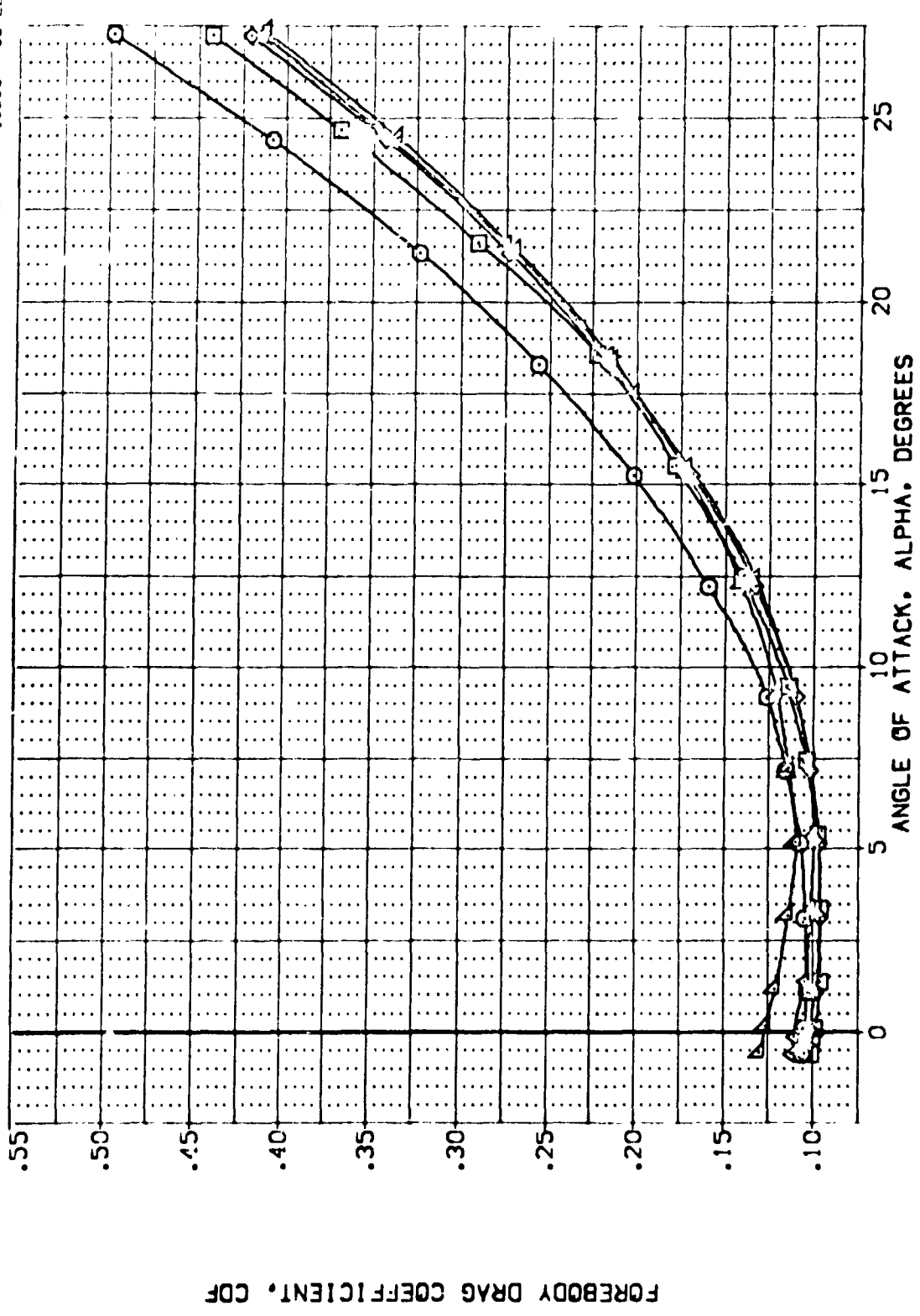


FIG. 7 ELEVON EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	STOBRK	REFERENCE INFORMATION
[1ELOC03]	ARC 87-747 DASSC B C M F VI V	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[1ELOC11]	ARC 87-747 DASSC B C M F VI V	.000	.000	-11.700	55.000	LREF 14.2440
[1ELOC02]	ARC 87-747 DASSC B C M F VI V	-10.000	.000	-11.700	55.000	BREF 28.1004
[1ELOC19]	ARC 87-747 DASSC B C M F VI V	-20.000	.000	-11.700	55.000	XREF 37.3070
[1ELOC23]	ARC 87-747 DASSC B C M F VI V	-40.000	.000	-11.700	55.000	YREF 11.2000
						ZREF .0000
						SCALE 11.2000
						IN. SCALE

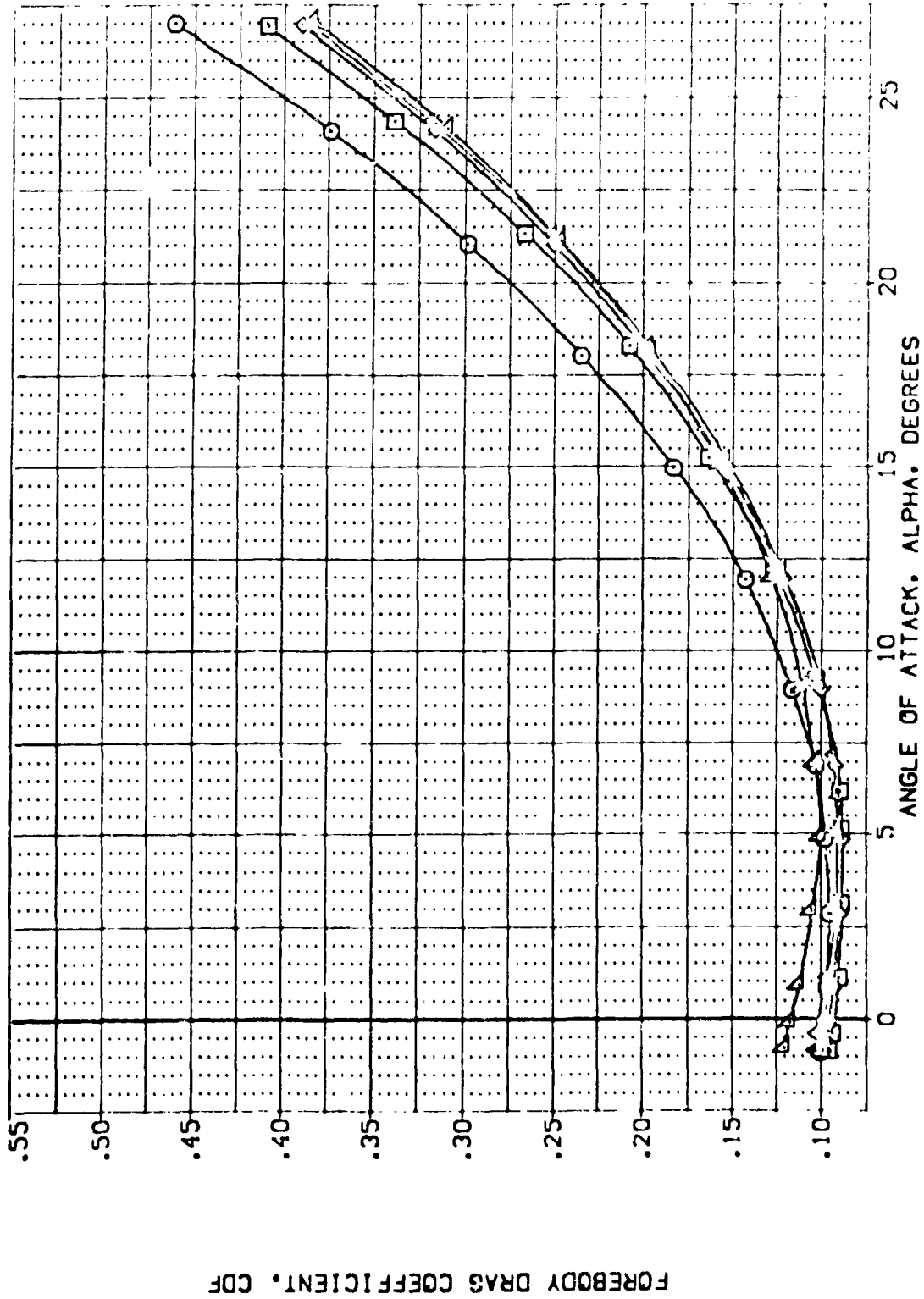


FIG. 7 ELEVON EFFECTS  
(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ELEVON	AIRLON	BDF LAP	SPOBRK	REFERENCE INFORMATION
ARC 87-747	DA53C B C M F V	V	RV/L	15.000	.000	-11.700	55.000	SREF 2.4210
ARC 87-747	DA53C B C M F V	V	RV/L	.000	.000	-11.700	55.000	LRFF 14.2440
ARC 87-747	DA53C B C M F V	V	RV/L	-10.000	.000	-11.700	55.000	BRFF 28.1004
ARC 87-747	DA53C B C M F V	V	RV/L	-20.000	.000	-11.700	55.000	YREF 32.3010
ARC 87-747	DA53C B C M F V	V	RV/L	-40.000	.000	-11.700	55.000	YREF 32.3010
								SCALE 11.0000
								SCALE 11.0000

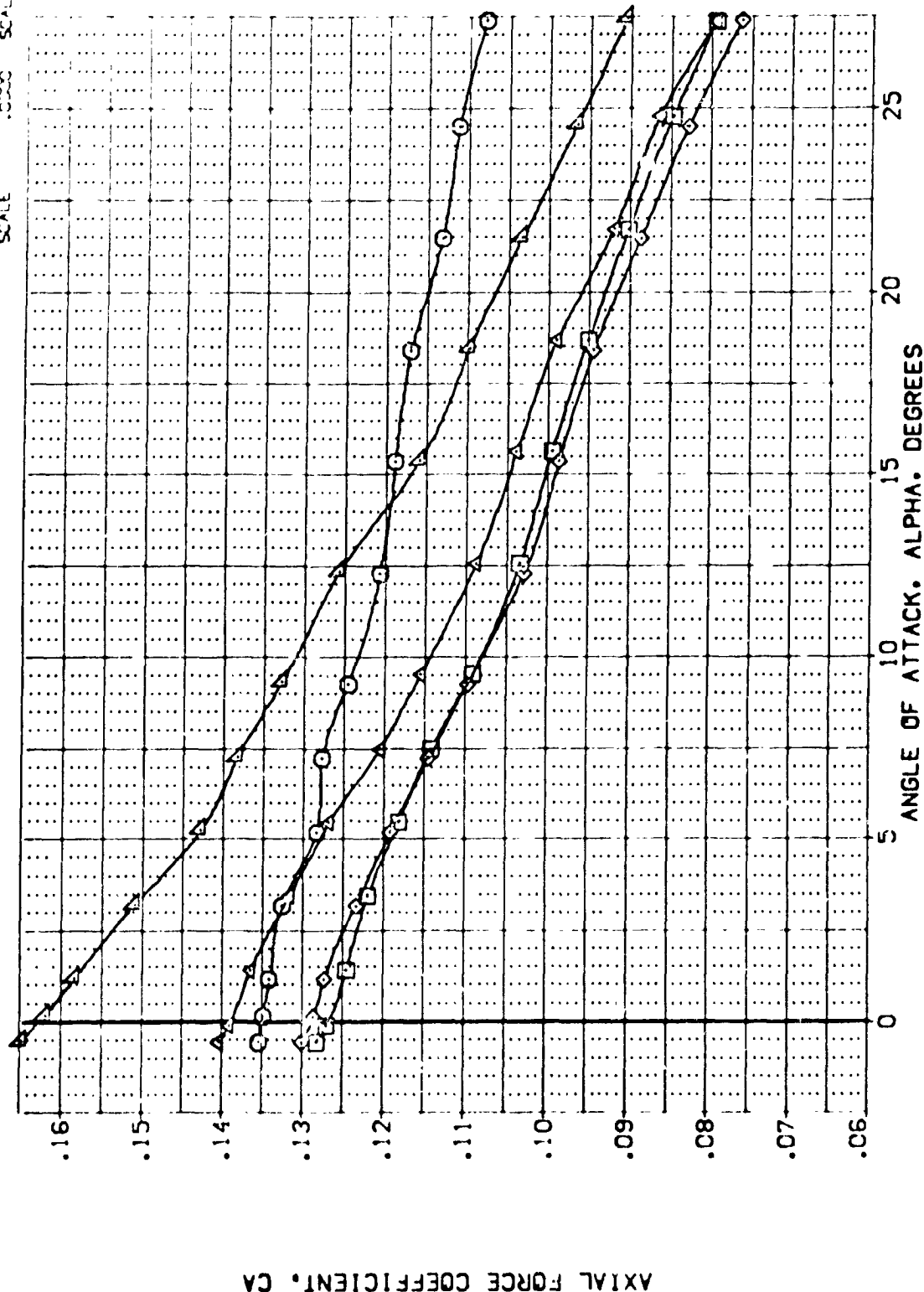


FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL

ARC 87-747

ARC 87-747

ARC 87-747

ARC 87-747

TEL003

TEL011

TEL002

TEL019

TEL023

CONFIGURATION DESCRIPTION

3 C M F VI

3 C M F VI

3 C M F VI

3 C M F VI

V

V

V

V

NO:

NO:

NO:

NO:

RV/L

RV/L

RV/L

RV/L

ELEVON

15.000

-10.000

-20.000

-40.000

AILERON

.000

.000

.000

.000

BD/LAP

-11.700

-11.700

-11.700

-11.700

SPDBRK

55.000

55.000

55.000

55.000

REFERENCE INFORMATION

SREF

2.4210

50.000

LREF

14.2440

50.000

BREF

28.1000

50.000

YMRP

32.3000

50.000

ZMRP

11.2000

50.000

SCALE

.0300

50.000

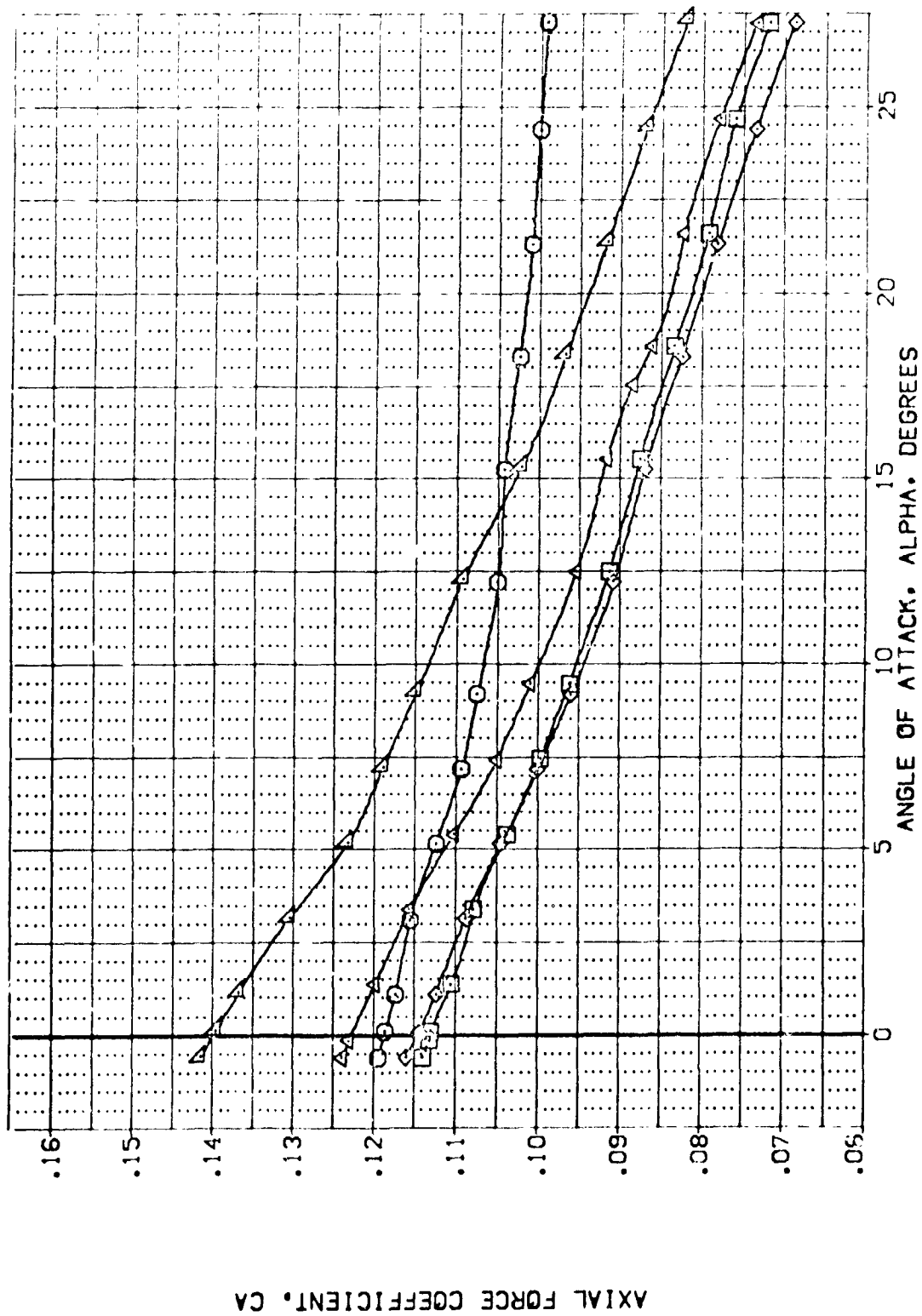


FIG. 7 ELEVON EFFECTS  
(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOT. RN/L	ELEVON	AIRLON	BOFLAP	SPORBN	REFERENCE INFORMATION
TE-DC3	ARC 87-747 CAS3C B C M F V	V	15.000	.000	-.700	55.000	SPRF 2.4210 SCALE
TE-DC3	ARC 87-747 CAS3C B C M F V	V	.000	.000	-.700	55.000	SPRF 14.7440
TE-DC3	ARC 87-747 CAS3C B C M F V	V	-10.000	.000	-.700	55.000	SPRF 28.0000
TE-DC3	ARC 87-747 CAS3C B C M F V	V	-20.000	.000	-.700	55.000	SPRF 32.0000
TE-DC3	ARC 87-747 CAS3C B C M F V	V	-40.000	.000	-.700	55.000	SPRF 11.2500 SCALE

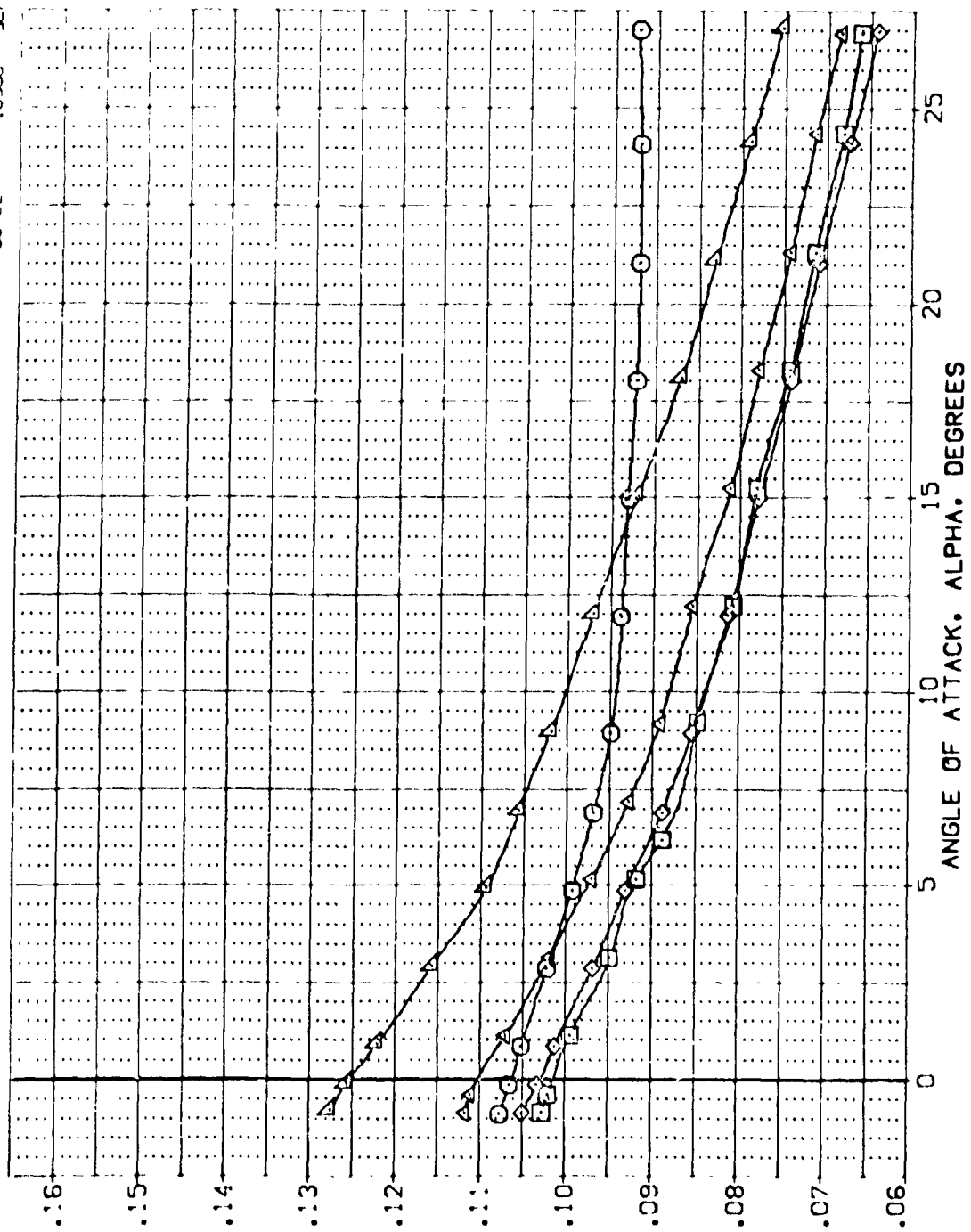


FIG. 7 ELEVON EFFECTS

(CMACH = 3.50)



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPDRBK	REFERENCE INFORMATION
[TELO03]	ARC 87-747 DAS3C B C M F V I V	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[TELO01]	ARC 87-747 DAS3C B C M F V I V	.000	.000	-11.700	55.000	REF 14.2440
[TELO02]	ARC 87-747 DAS3C B C M F V I V	-10.000	.000	-11.700	55.000	REF 28.1004
[TELO03]	ARC 87-747 DAS3C B C M F V I V	-20.000	.000	-11.700	55.000	REF 32.3010
[TELO03]	ARC 87-747 DAS3C B C M F V I V	-40.000	.000	-11.700	55.000	REF 11.2500

SCALE .0300

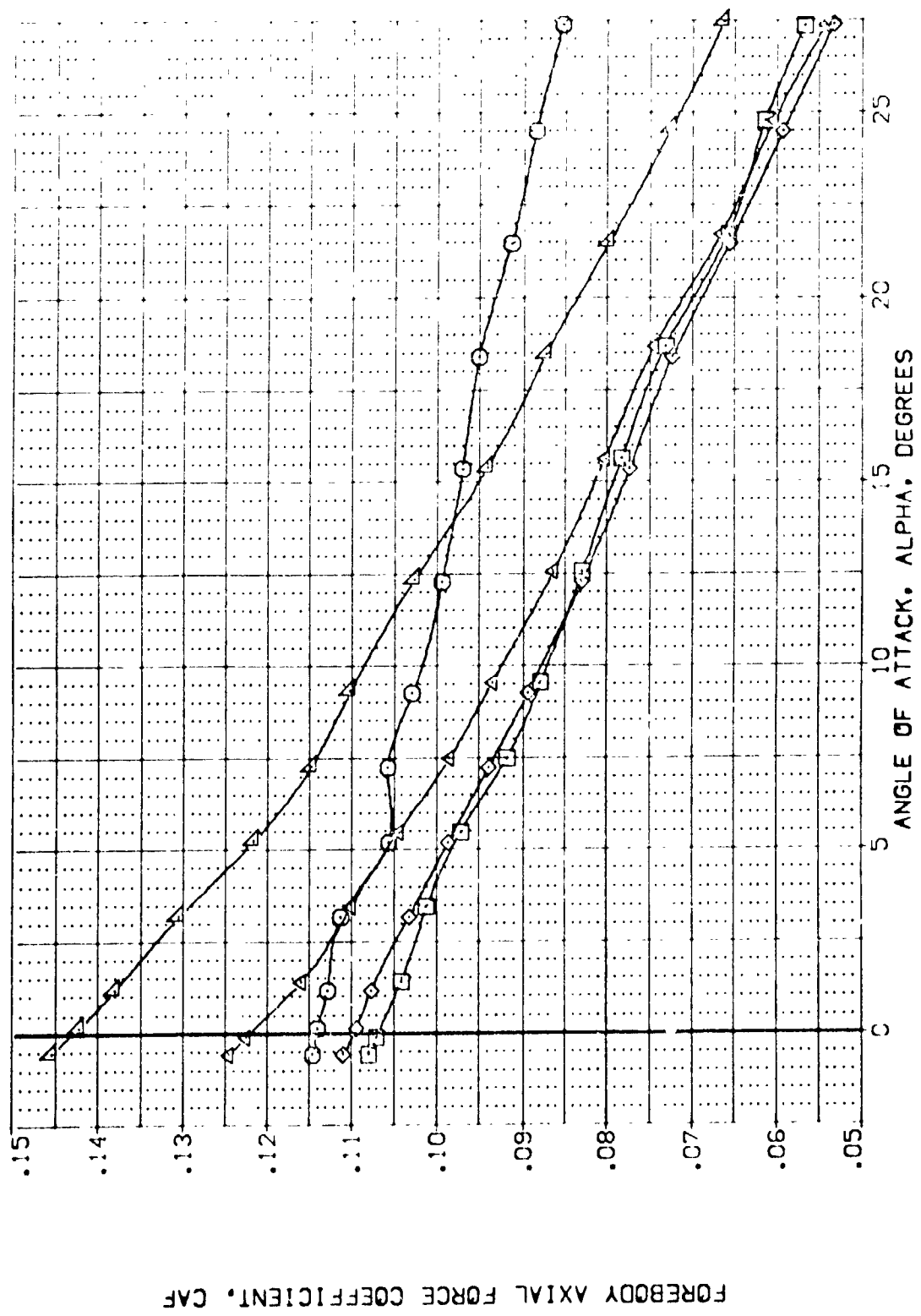


FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPDBRK	SRFF	SC.FT.
ARC 87-747	0453C B C M F VI V	15.000	.000	-.700	55.000	2.4210	SC.FT.
ARC 87-747	0453C B C M F VI V	10.000	.000	-.700	55.000	14.2440	SC.FT.
ARC 87-747	0453C B C M F VI V	-10.000	.000	-.700	55.000	78.1004	SC.FT.
ARC 87-747	0453C B C M F VI V	-20.000	.000	-.700	55.000	32.8015	SC.FT.
ARC 87-747	0453C B C M F VI V	-40.000	.000	-.700	55.000	11.2500	SC.FT.

SCALE 10.000

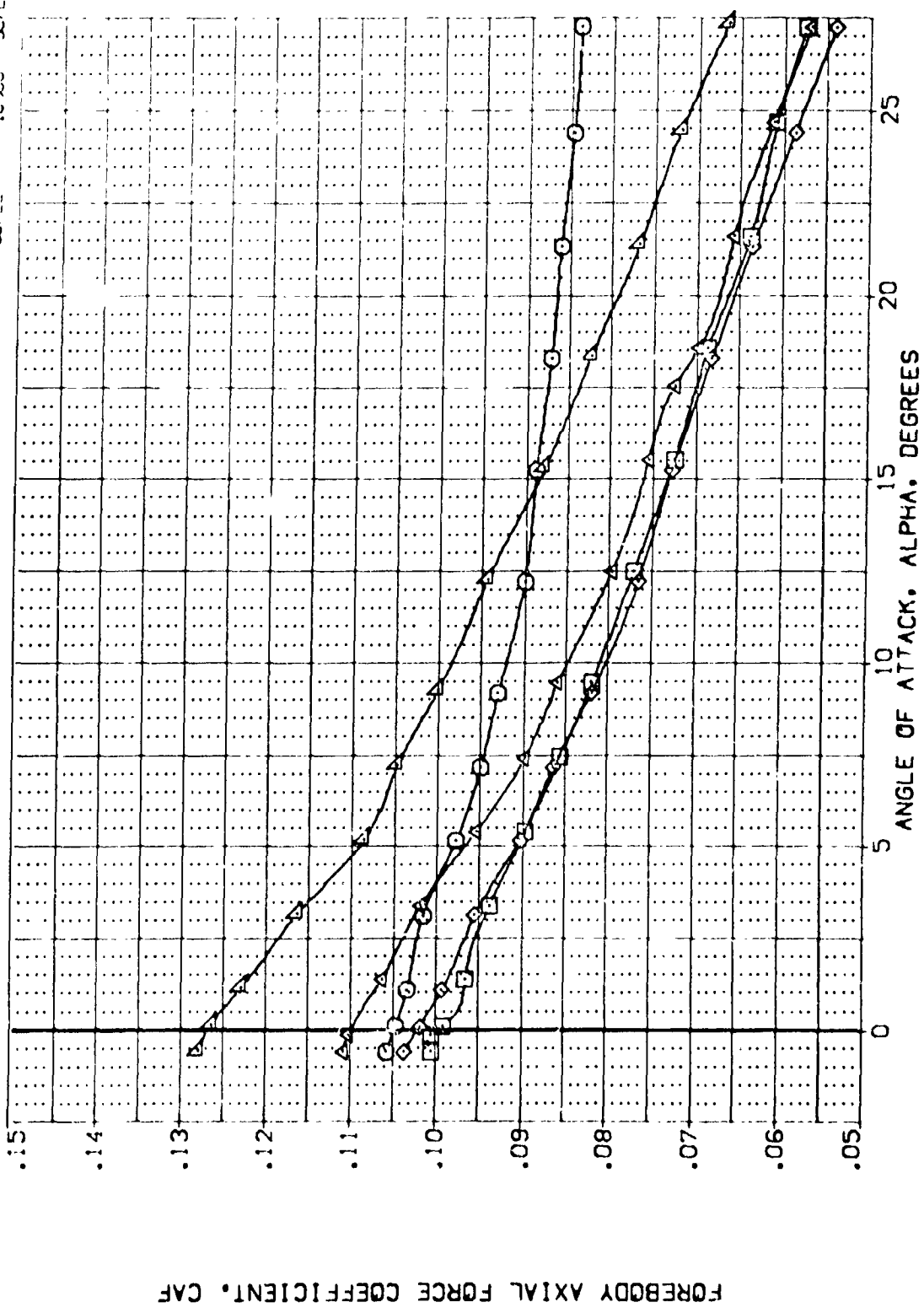


FIG. 7 ELEVON EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPDBRK	REFERENCE INFORMATION
[*EL003]	ARC 87-747 OAS3C B C M F V	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[*EL011]	ARC 87-747 OAS3C B C M F V	10.000	.000	-11.700	55.000	LREF 14.2443
[*EL002]	ARC 87-747 OAS3C B C M F V	-10.000	.000	-11.700	55.000	BREF 28.0004
[*EL019]	ARC 87-747 OAS3C B C M F V	-20.000	.000	-11.700	55.000	XREF 32.3013
[*EL023]	ARC 87-747 OAS3C B C M F V	-40.000	.000	-11.700	55.000	YREF 11.2500
						SCALE 10.500

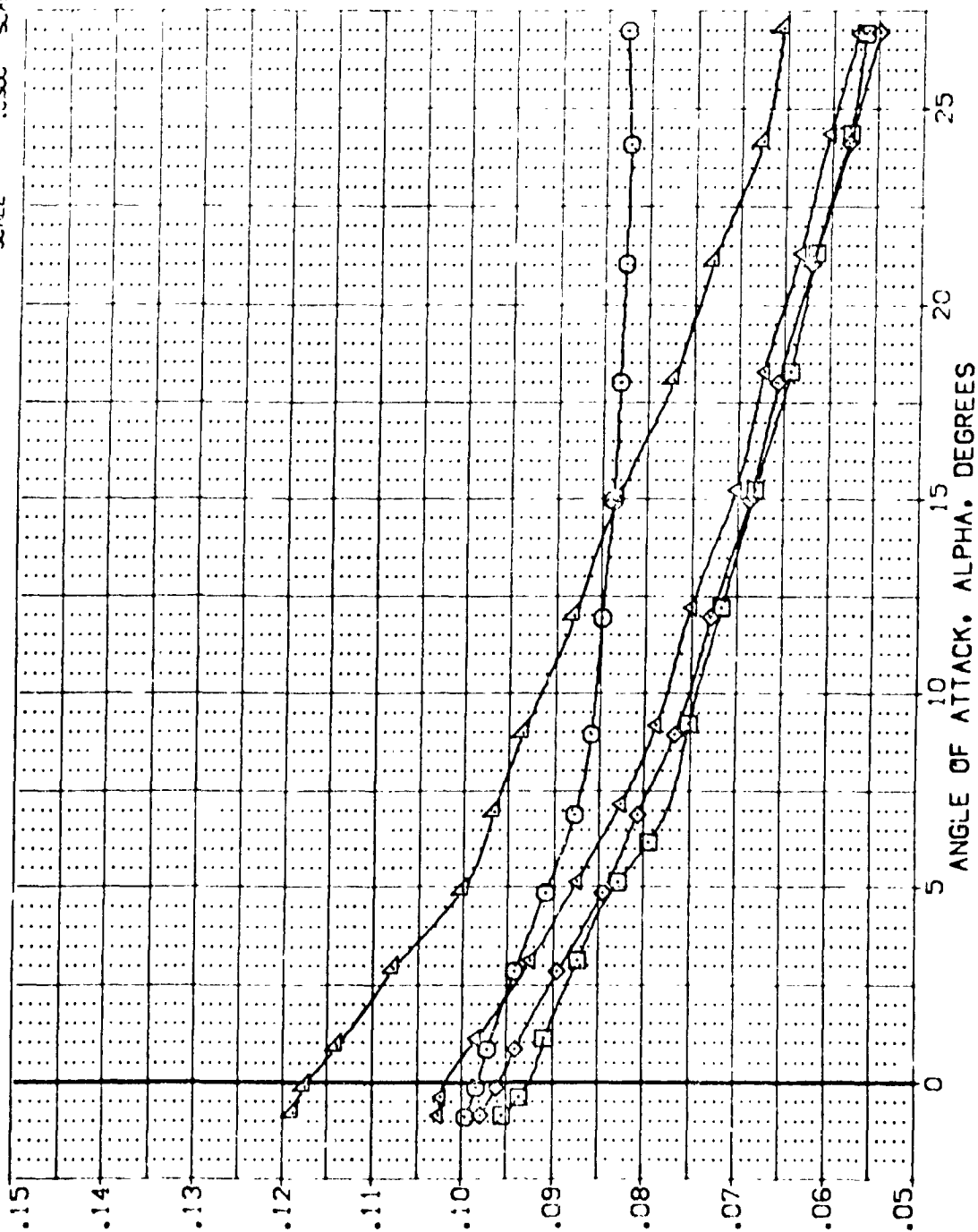


FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ELEVON	AILRON	BOFLAP	SPDRK	REFERENCE INFORMATION
(TEL003)	ARC 87-747 CAS3C B C M F V	V	RV/L	15.000	.000	-11.700	55.000	SREF 2.4210 50. FT.
(TEL011)	ARC 87-747 CAS3C B C M F V	V	RV/L	.000	.000	-11.700	55.000	LREF 14.2440 22.
(TEL002)	ARC 87-747 CAS3C B C M F V	V	RV/L	-10.000	.000	-11.700	55.000	BREF 28.1004 22.
(TEL019)	ARC 87-747 CAS3C B C M F V	V	RV/L	-20.000	.000	-11.700	55.000	XMRP 32.3010 22.
(TEL023)	ARC 87-747 CAS3C B C M F V	V	RV/L	-40.000	.000	-11.700	55.000	ZMRP 11.2500 22.
								SCALE .0300

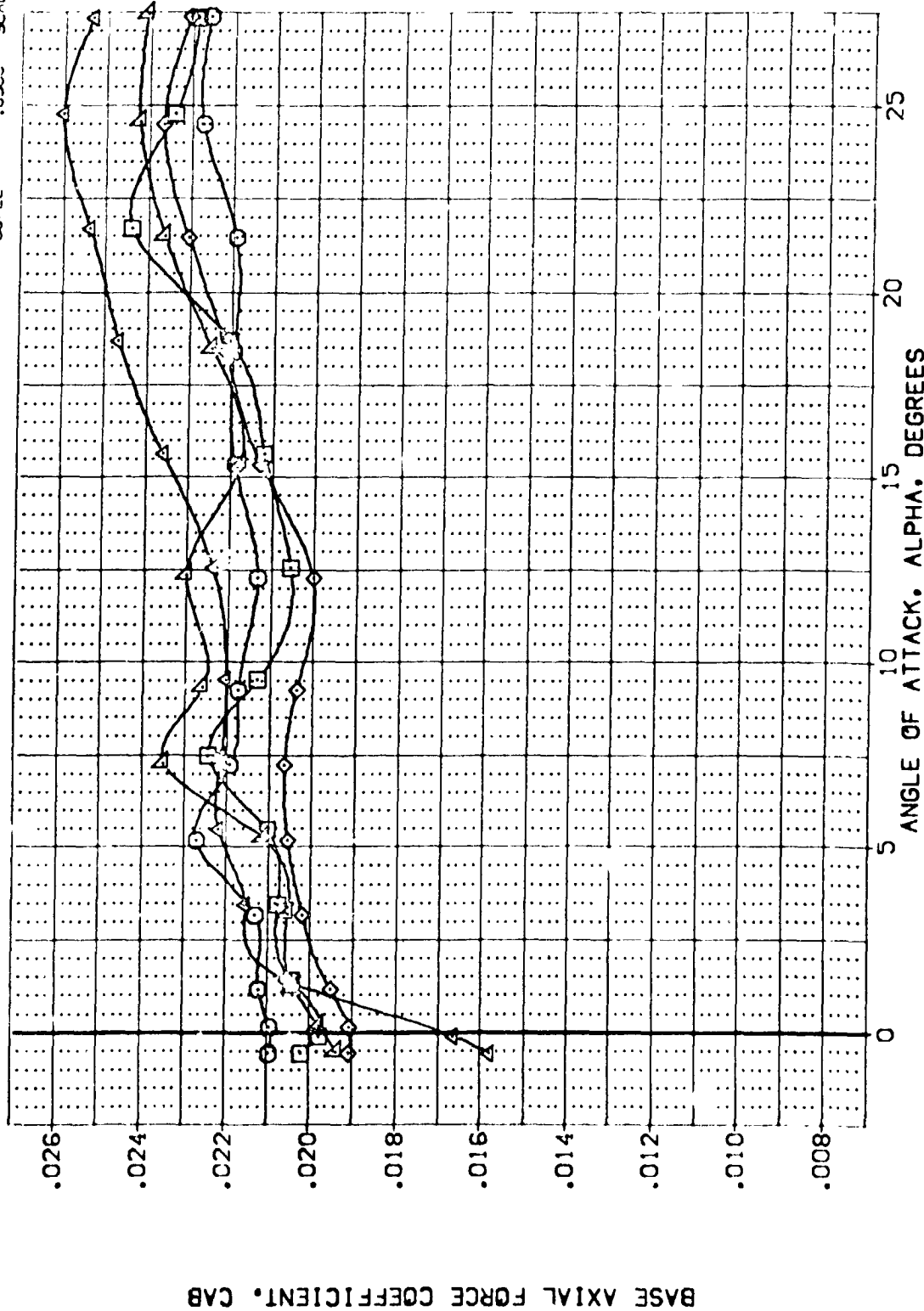


FIG. 7 ELEVON EFFECTS

(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	BOFLAP	SPDRBK	REFERENCE INFORMATION
[TEL003]	ARC 87-747 DAS3C B C M F VI	15.000	.000	-11.700	55.000	SREF 2.4210 SC.F.
[TEL011]	ARC 87-747 DAS3C B C M F VI	.000	.000	-11.700	55.000	LPREF 14.2440
[TEL022]	ARC 87-747 DAS3C B C M F VI	-10.000	.000	-11.700	55.000	BPREF 28.1004
[TEL019]	ARC 87-747 DAS3C B C M F VI	-20.000	.000	-11.700	55.000	YMREF 32.3500
[TEL023]	ARC 87-747 DAS3C B C M F VI	-40.000	.000	-11.700	55.000	YREF 11.2000
						SCALE 10000

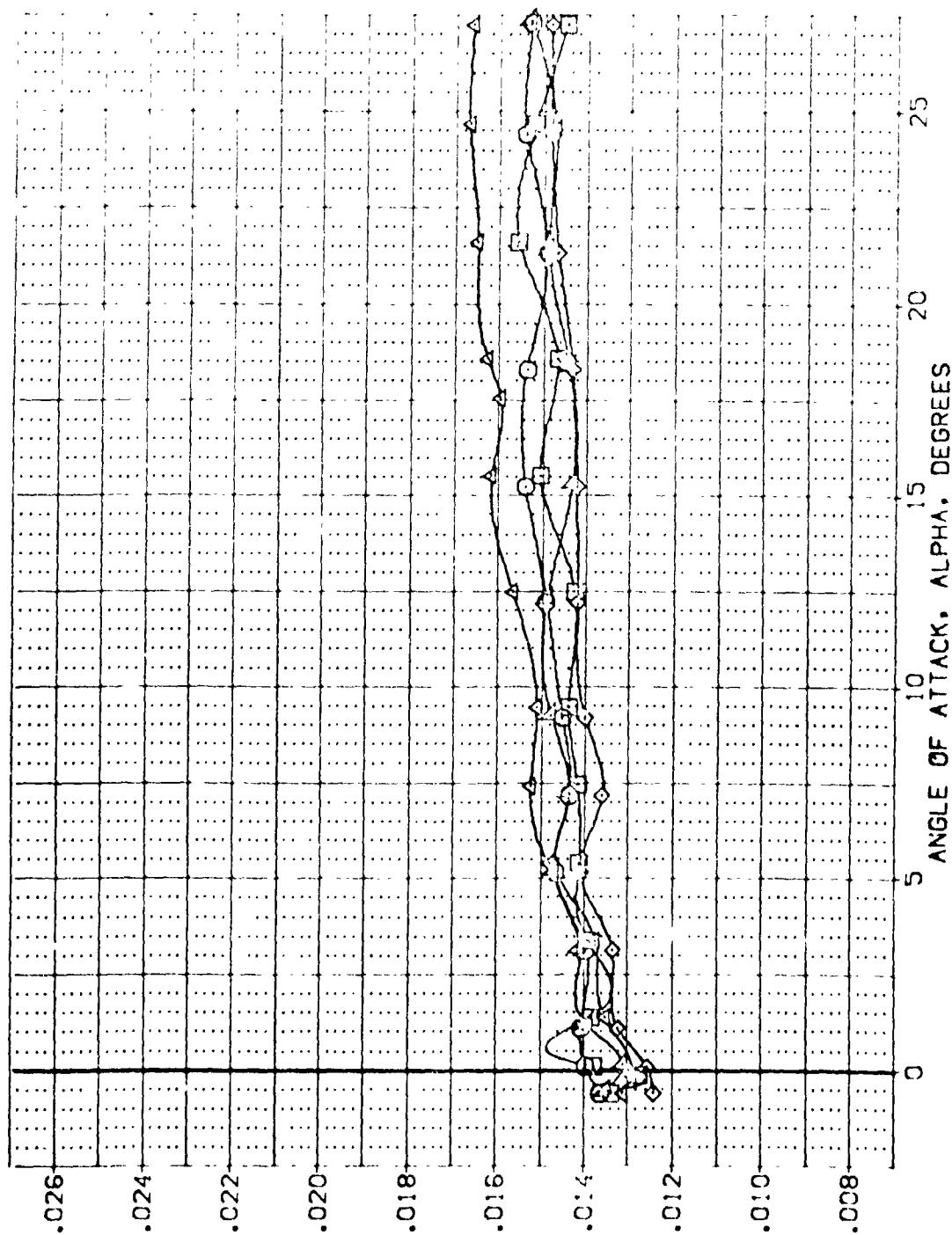


FIG. 7 ELEVON EFFECTS

(B) VACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOT	RV/L	ELEVON	AIRLON	BOLAP	SPOBRK	REFERENCE INFORMATION
TEL003	ARC 87-747 CAS3C B C M F VI V	NOT	RV/L	15.000	.000	-11.700	55.000	SREF 2.4210 SC.F
TEL011	ARC 87-747 CAS3C B C M F VI V	NOT	RV/L	.000	.000	-11.700	55.000	LREF 14.2440
TEL007	ARC 87-747 CAS3C B C M F VI V	NOT	RV/L	-10.000	.000	-11.700	55.000	BREF 28.1004
TEL019	ARC 87-747 CAS3C B C M F VI V	NOT	RV/L	-20.000	.000	-11.700	55.000	YREF 32.3010
TEL023	ARC 87-747 CAS3C B C M F VI V	NOT	RV/L	-40.000	.000	-11.700	55.000	ZREF 11.2500
								SCALE 0.000

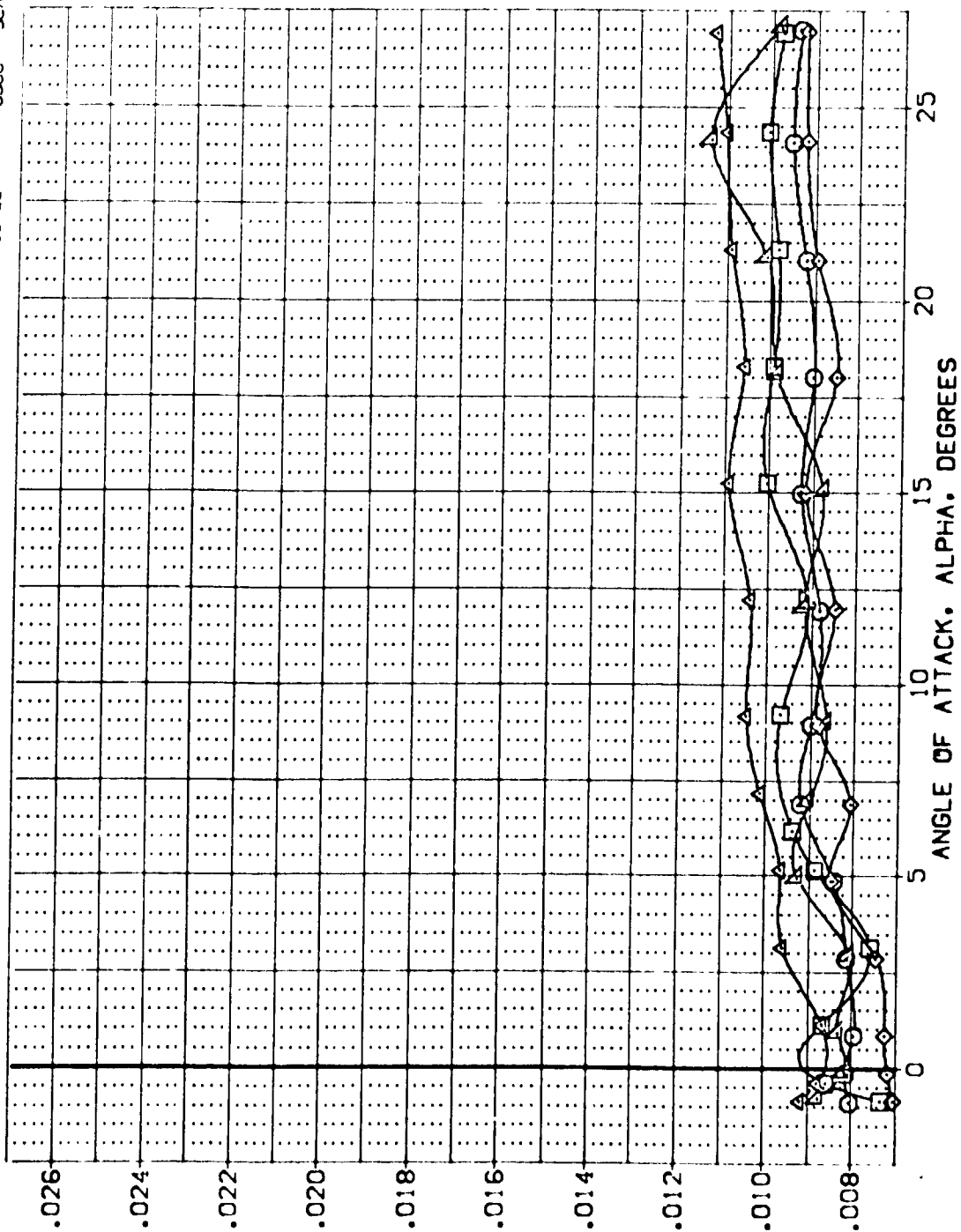


FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AIRLON	BOFLAP	SPDBRK	REFERENCE INFORMATION
(TEL003)	ARC 87-747 DASC B C H F VI V	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(TEL011)	ARC 87-747 DASC B C H F VI V	.000	.000	-11.700	55.000	LREF 14.2440
(TEL007)	ARC 87-747 DASC B C H F VI V	-10.000	.000	-11.700	55.000	BREF 28.1000
(TEL019)	ARC 87-747 DASC B C H F VI V	-20.000	.000	-11.700	55.000	YMRP 32.3010
(TEL073)	ARC 87-747 DASC B C H F VI V	-40.000	.000	-11.700	55.000	ZMRP .0000
						SCALE 11.2500
						SCALE .0300

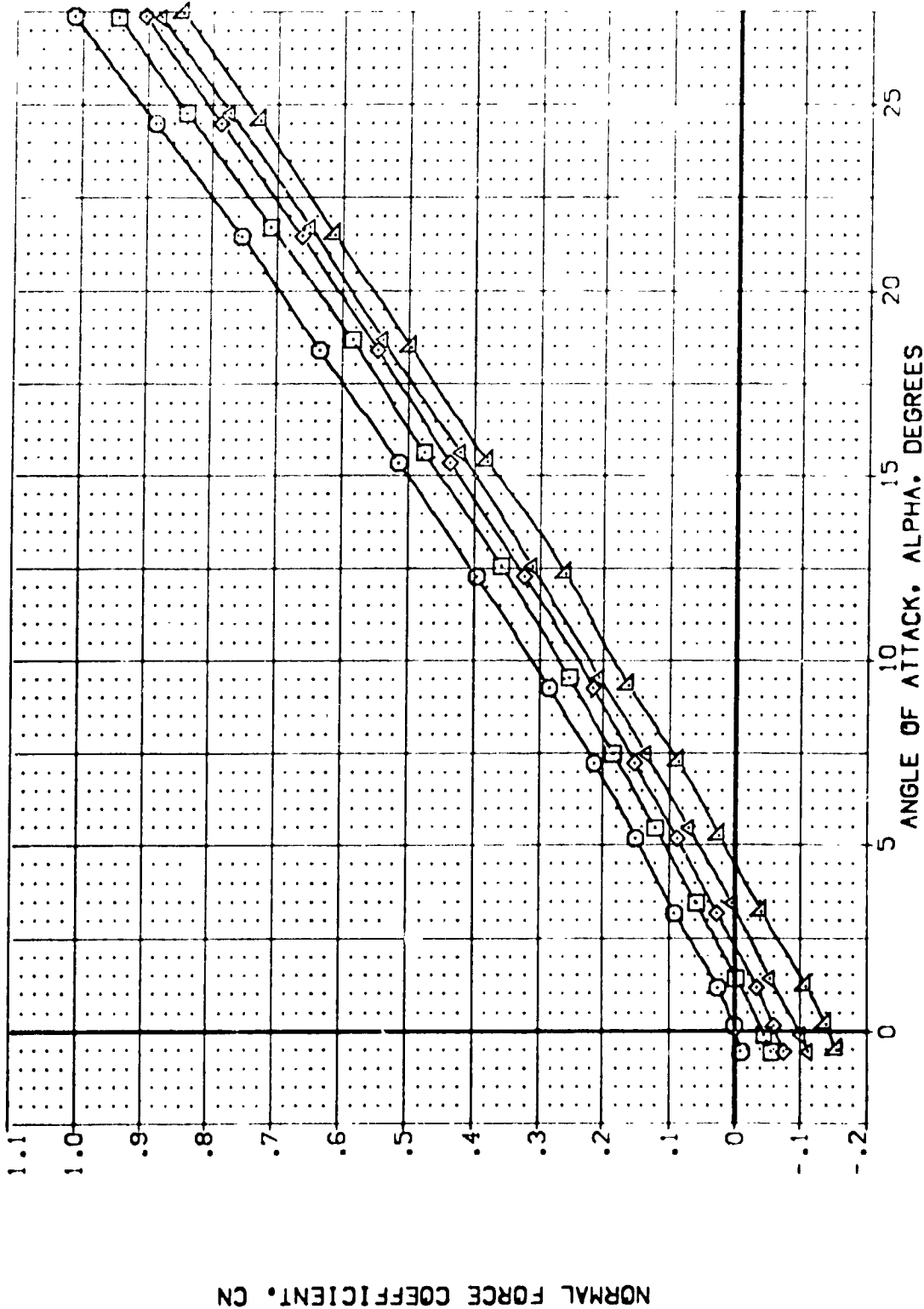
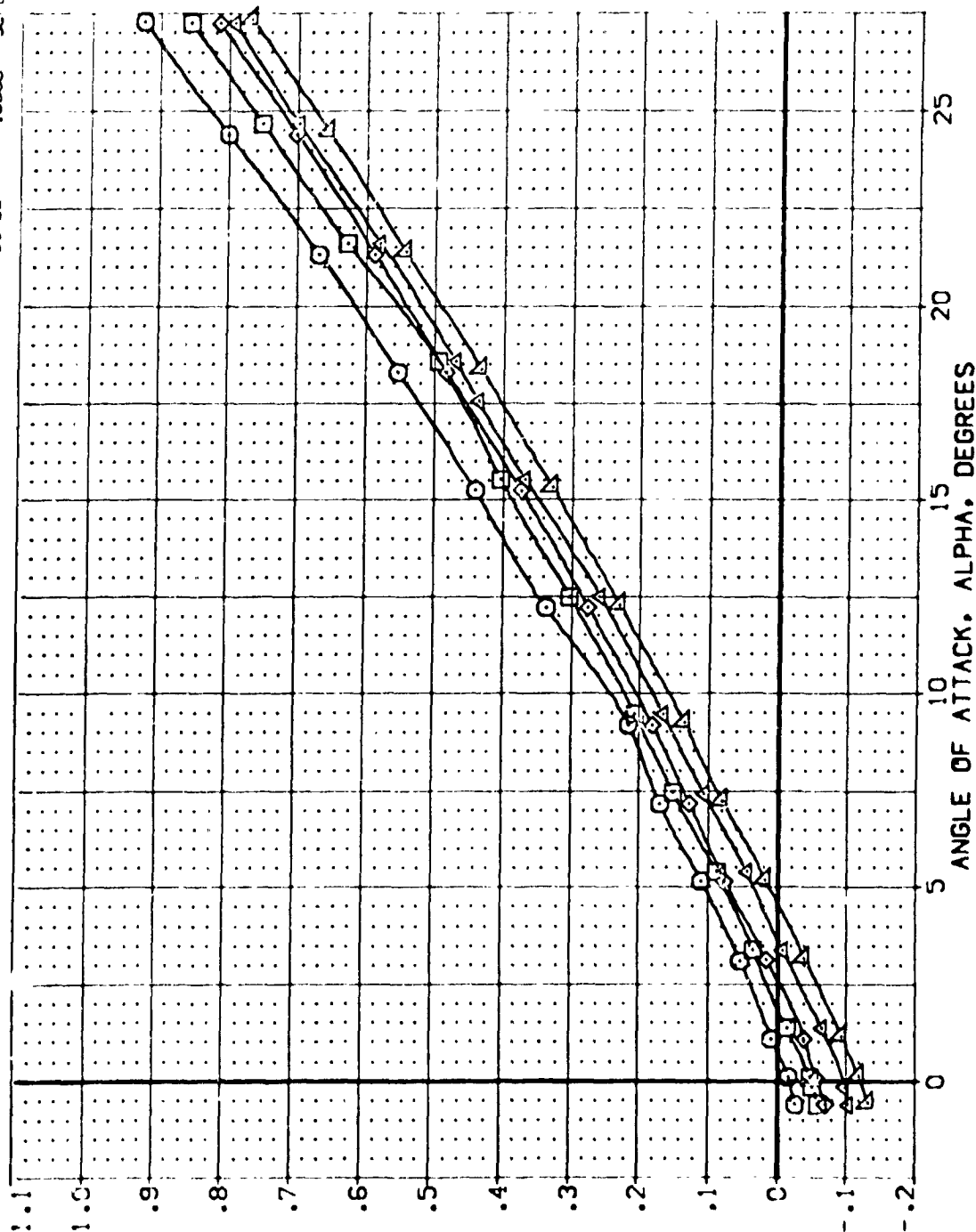


FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50

DATA SET SYMPL	CONFIGURATION DESCRIPTION	NON	RM/L	ELEVON	AILRON	BOFLAP	SPDBRK	REFERENCE INFORMATION
[TEUC03]	ARC 87-747 CAS3C B C M F V	V	RM/L	15.000	.000	-11.700	55.000	SREF 2.4210 SC.FT.
[TEUC04]	ARC 87-747 CAS3C B C M F V	V	RM/L	.000	.000	-11.700	55.000	LREF 14.2440
[TEUC05]	ARC 87-747 CAS3C B C M F V	V	RM/L	-10.000	.000	-11.700	55.000	BREF 28.1004
[TEUC06]	ARC 87-747 CAS3C B C M F V	V	RM/L	-20.000	.000	-11.700	55.000	YMRP 32.3010
[TEUC07]	ARC 87-747 CAS3C B C M F V	V	RM/L	-40.000	.000	-11.700	55.000	ZMRP 11.0000
								SCALE 11.0000
								SCALE .0300



NORMAL FORCE COEFFICIENT, CN

FIG. 7 ELEVON EFFECTS

(8)MACH = 3.00



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    AIRRON    BDF LAP    SPOBRK    REFERENCE INFORMATION

[ELOC3]	ARC 87-747 CAS3C B C M F V1	15.000	.000	-11.700	55.000	SREF 2.4210
[ELOC1]	ARC 87-747 CAS3C B C M F V1	.000	.000	-11.700	55.000	LREF 14.2440
[ELOC2]	ARC 87-747 CAS3C B C M F V1	-10.000	.000	-11.700	55.000	BREF 28.1004
[ELOC5]	ARC 87-747 CAS3C B C M F V1	-20.000	.000	-11.700	55.000	YREF 32.3010
[ELOC73]	ARC 87-747 CAS3C B C M F V1	-40.000	.000	-11.700	55.000	ZREF 11.2500
						SCALE 1.5300

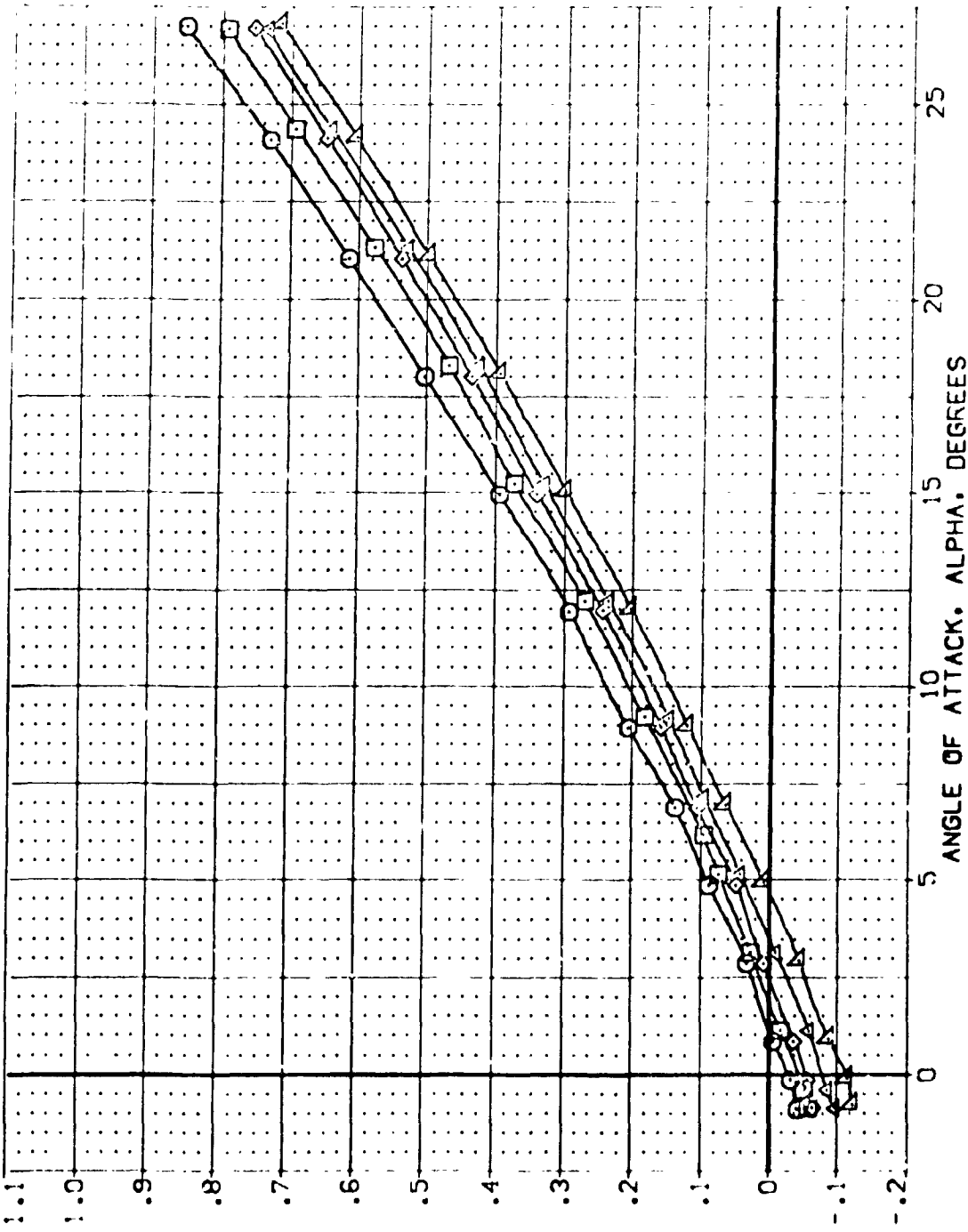
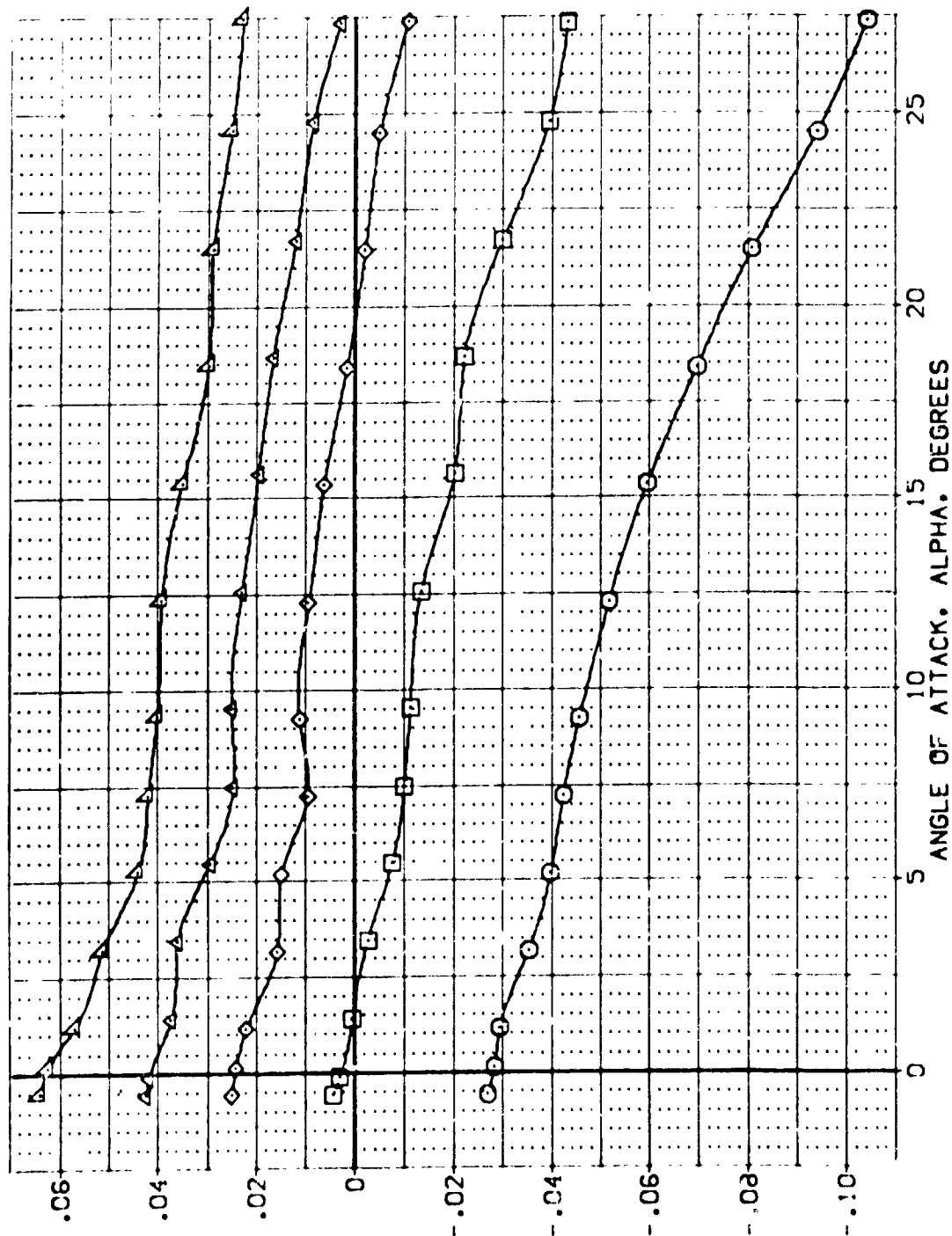


FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	BDF LAP	SPOBRK	REFERENCE INFORMATION
[*ELOC3]	ARC 87-747 BASIC B C M F V	15.000	.000	-11.700	55.000	SREF 2.4210 50. FT.
[*ELOC1]	ARC 87-747 BASIC B C M F V	-10.000	.000	-11.700	55.000	LREF 14.2440 22. "
[*ELOC2]	ARC 87-747 BASIC B C M F V	-20.000	.000	-11.700	55.000	BREF 28.1004 22. "
[*ELOC19]	ARC 87-747 BASIC B C M F V	-40.000	.000	-11.700	55.000	XMRP 32.3010 22. "
[*ELOC23]	ARC 87-747 BASIC B C M F V					YMRP .0000 22. "
						ZMRP 11.2500 22. "
						SCALE .0300



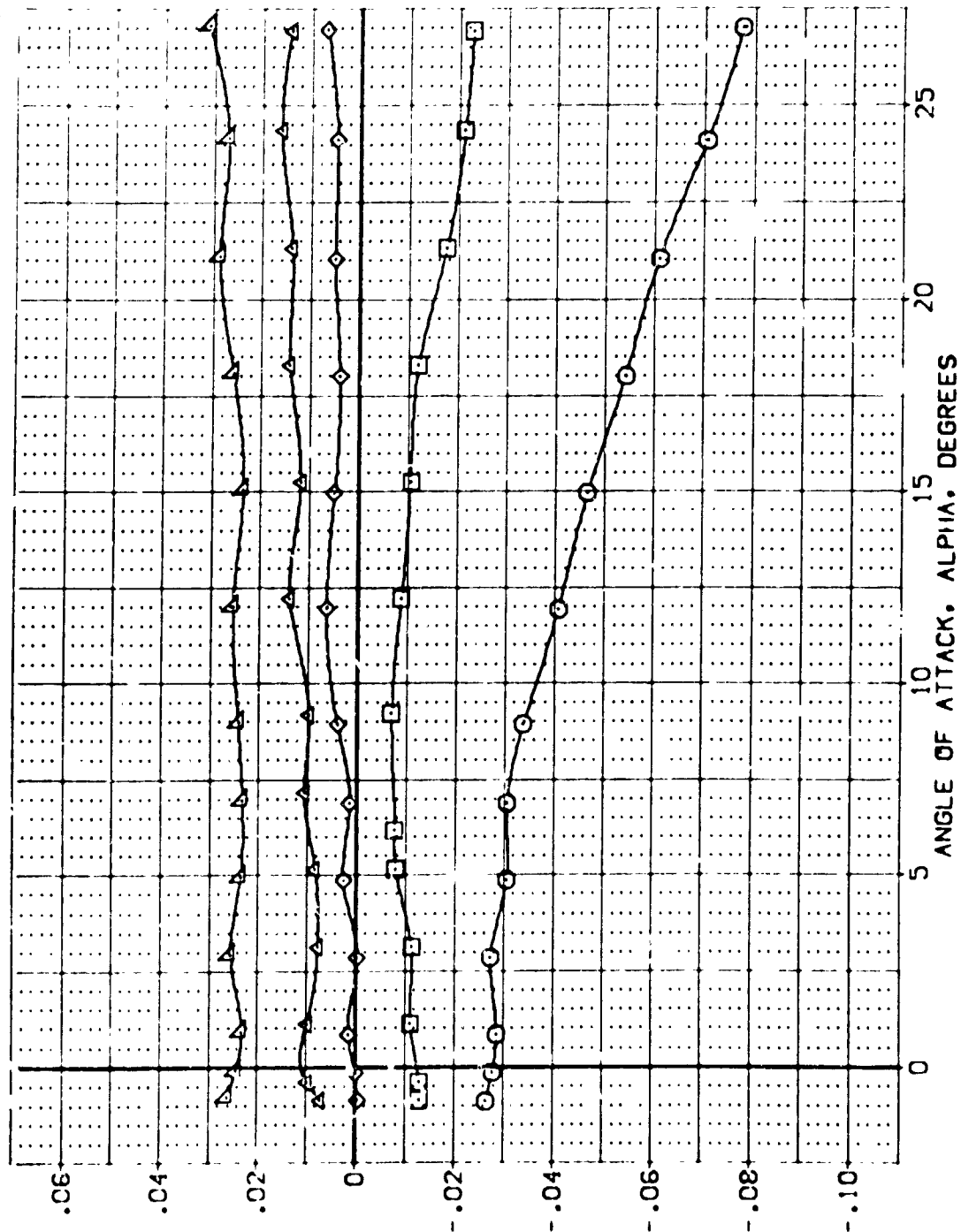
PITCHING MOMENT COEFFICIENT (FWD C.G.), C<sub>LMFW</sub>

FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AIRLON	BOLAP	SPDBRK	REFERENCE INFORMATION
1E-003	ARC 87-747 D453C B C M F V	15.000	.000	-11.700	55.000	SREF 2.4710 SC.F.
2E-003	ARC 87-747 D453C B C M F V	.000	.000	-11.700	55.000	BRF 14.2440
3E-003	ARC 87-747 D453C B C M F V	-10.000	.000	-11.700	55.000	SPREF 28.1004
4E-003	ARC 87-747 D453C B C M F V	-20.000	.000	-11.700	55.000	K-RRP 37.9010
5E-003	ARC 87-747 D453C B C M F V	-40.000	.000	-11.700	55.000	Y-RRP 11.7500
						SCALE .0300



PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFWO

FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILLON	FOIL LAP	SPOBRK	REFERENCE INFORMATION
(TELO03)	ARC 87-747 DASSC B C M F VI	15.000	.000	-11.700	55.000	SREF 2.4210 50. FT.
(TELO11)	ARC 87-747 DASSC B C M F VI	.000	.000	-11.700	55.000	LREF 14.2440 IN.
(TELO02)	ARC 87-747 DASSC B C M F VI	-10.000	.000	-11.700	55.000	BREF 28.1004 IN.
(TELO19)	ARC 87-747 DASSC B C M F VI	-20.000	.000	-11.700	55.000	KMRP 32.3012 IN.
(TELO23)	ARC 87-747 DASSC B C M F VI					VMRP .0000 IN.
						ZMRP 11.2500 IN.
						SCALE .0300

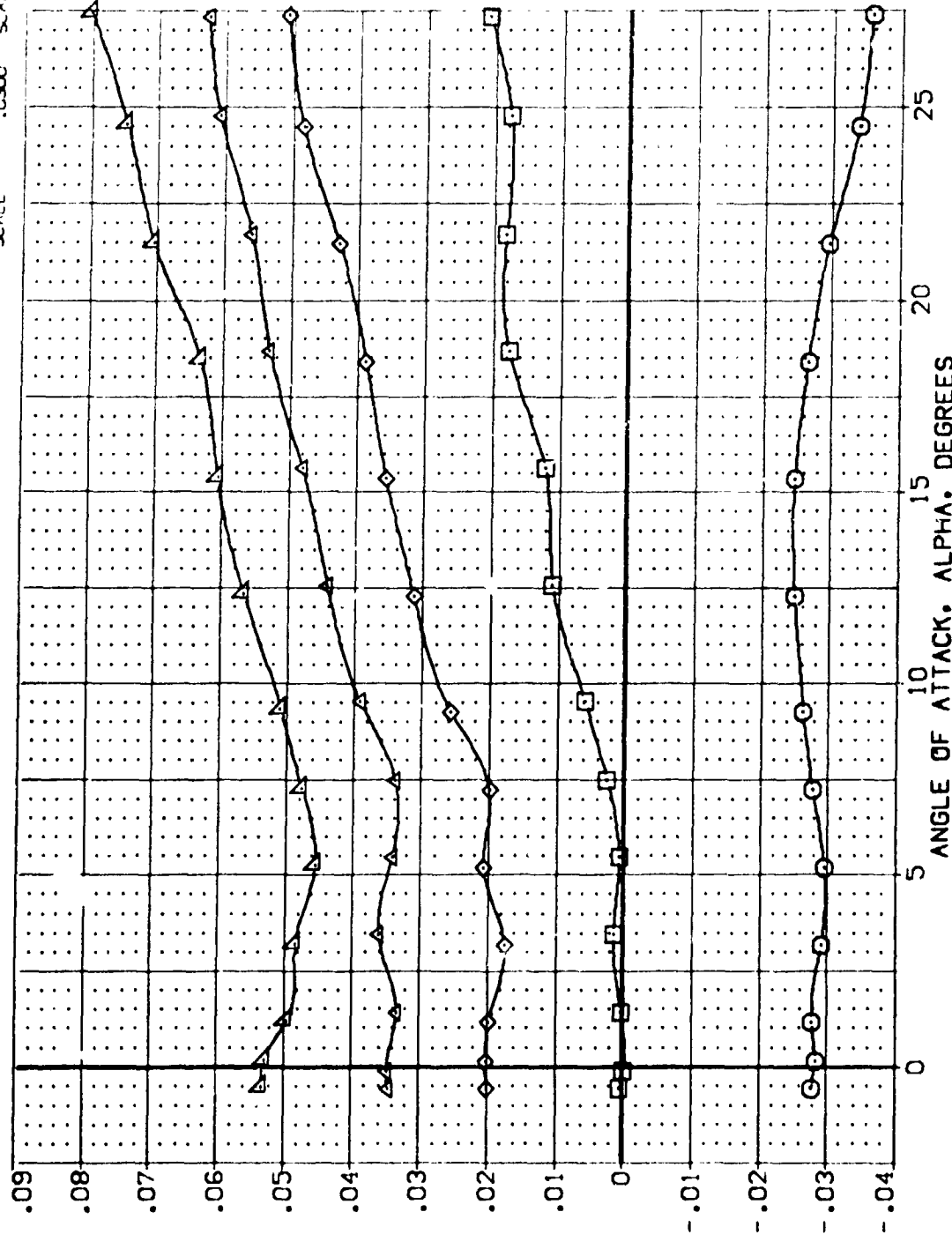


FIG. 7 ELEVON EFFECTS

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF. INFO	SPDRK	ELEVON	ALLCON	BOFLAP	REFERENCE INFORMATION
EL-003	APC 87-747 DASSC B C M F V	2.4210	55.000	15.000	.000	-11.700	SREF 2.4210 50.00
EL-001	APC 87-747 DASSC B C M F V	14.2440	55.000	15.000	.000	-11.700	LREF 14.2440 50.00
EL-002	APC 87-747 DASSC B C M F V	28.1000	55.000	-10.000	.000	-11.700	BREF 28.1000 50.00
EL-009	APC 87-747 DASSC B C M F V	32.3010	55.000	-20.000	.000	-11.700	XREF 32.3010 50.00
EL-073	APC 87-747 DASSC B C M F V	11.2500	55.000	-40.000	.000	-11.700	ZREF 11.2500 50.00
							SCALE .0300

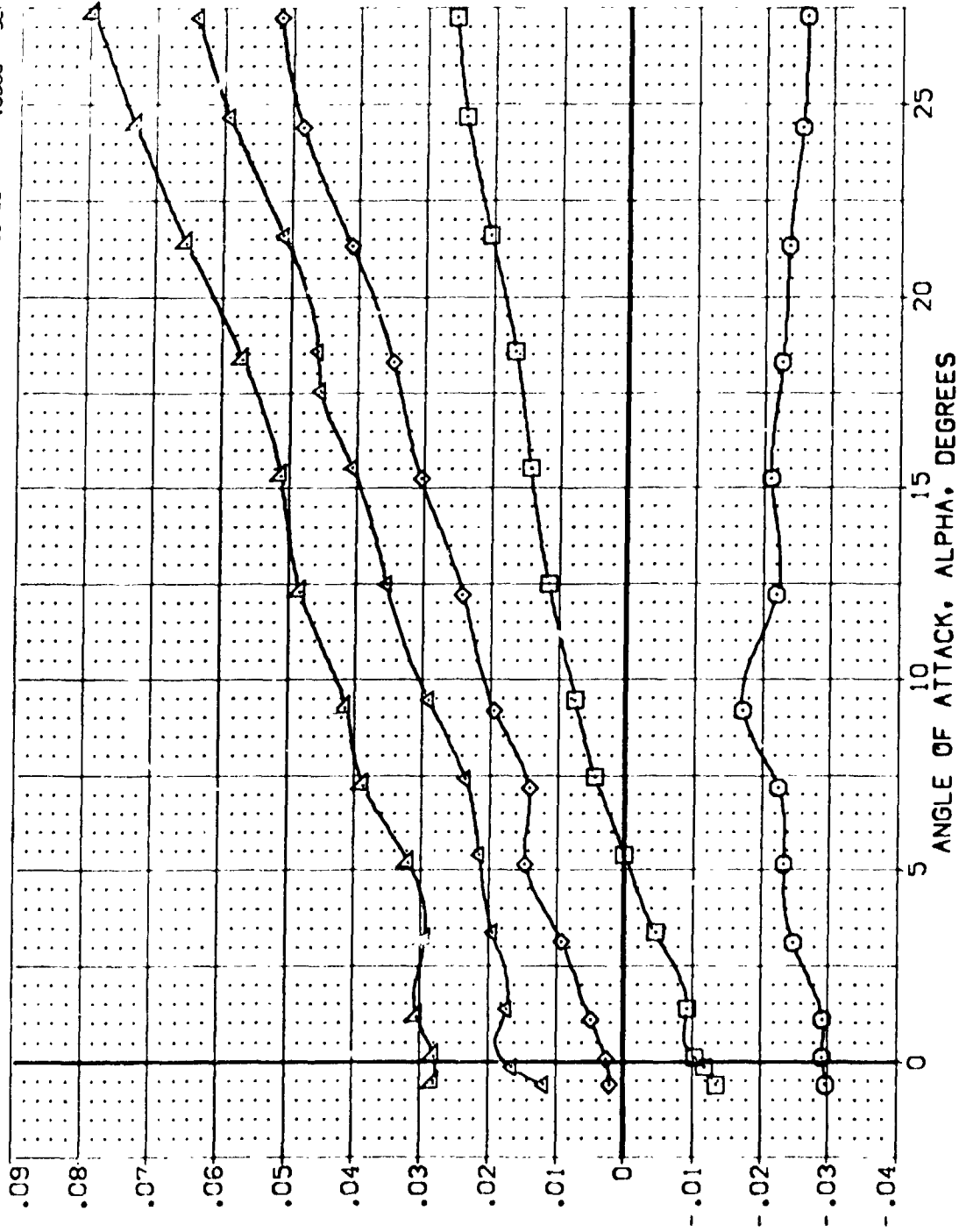
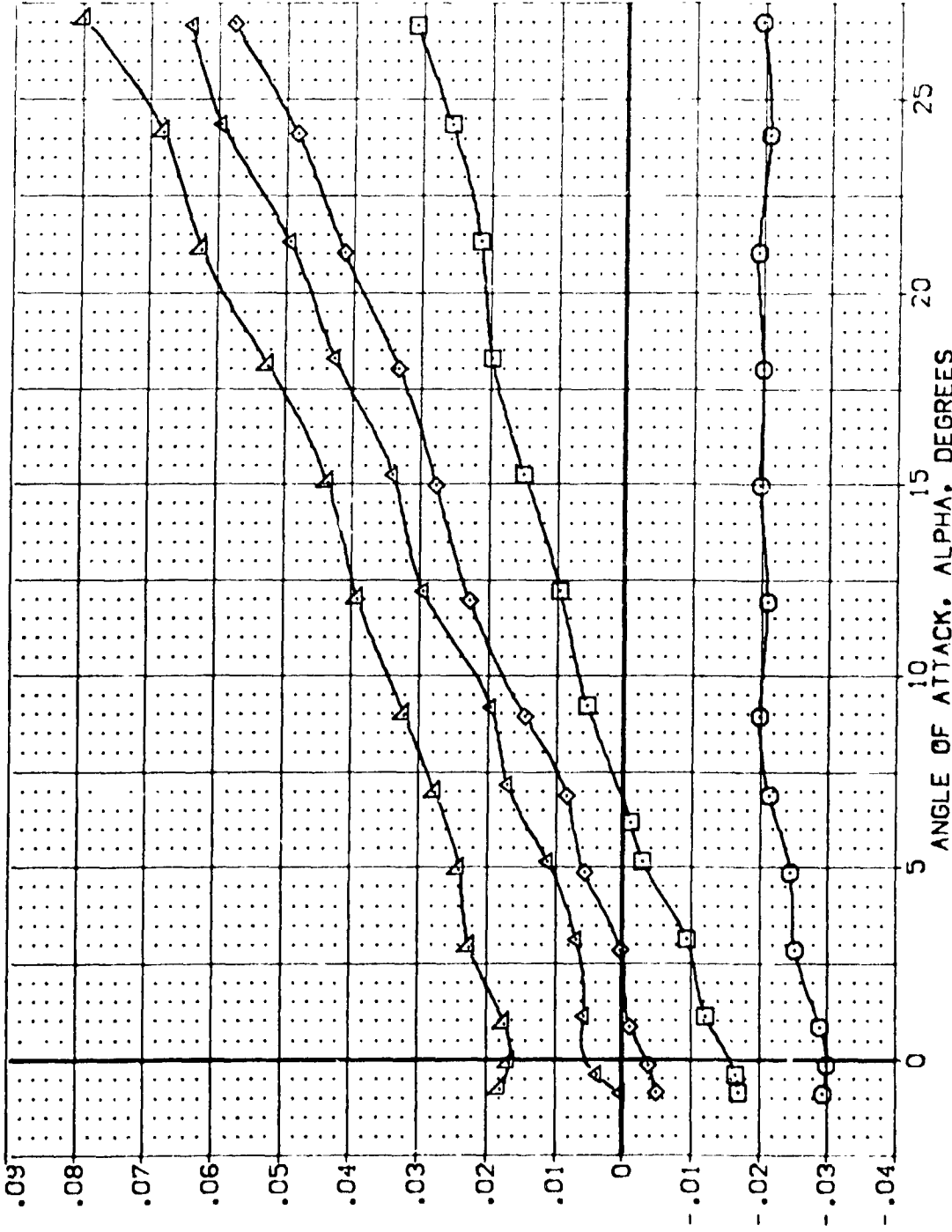


FIG. 7 ELEVON EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL. CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOG LAP	SPDRBK	REFERENCE INFORMATION
TEL003	ARC 87-747 DAS3C B C M F V	15.000	.000	-11.700	55.000	SREF 2.4210 50.000
TEL011	ARC 87-747 DAS3C B C M F V	.000	.000	-11.700	55.000	LREF 14.2440 N.
TEL002	ARC 87-747 DAS3C B C M F V	-10.000	.000	-11.700	55.000	BREF 28.1004 N.
TEL019	ARC 87-747 DAS3C B C M F V	-20.000	.000	-11.700	55.000	YMRP 32.3010 N.
TEL023	ARC 87-747 DAS3C B C M F V	-40.000	.000	-11.700	55.000	ZMRP 11.2500 N.
						SCALE .0300

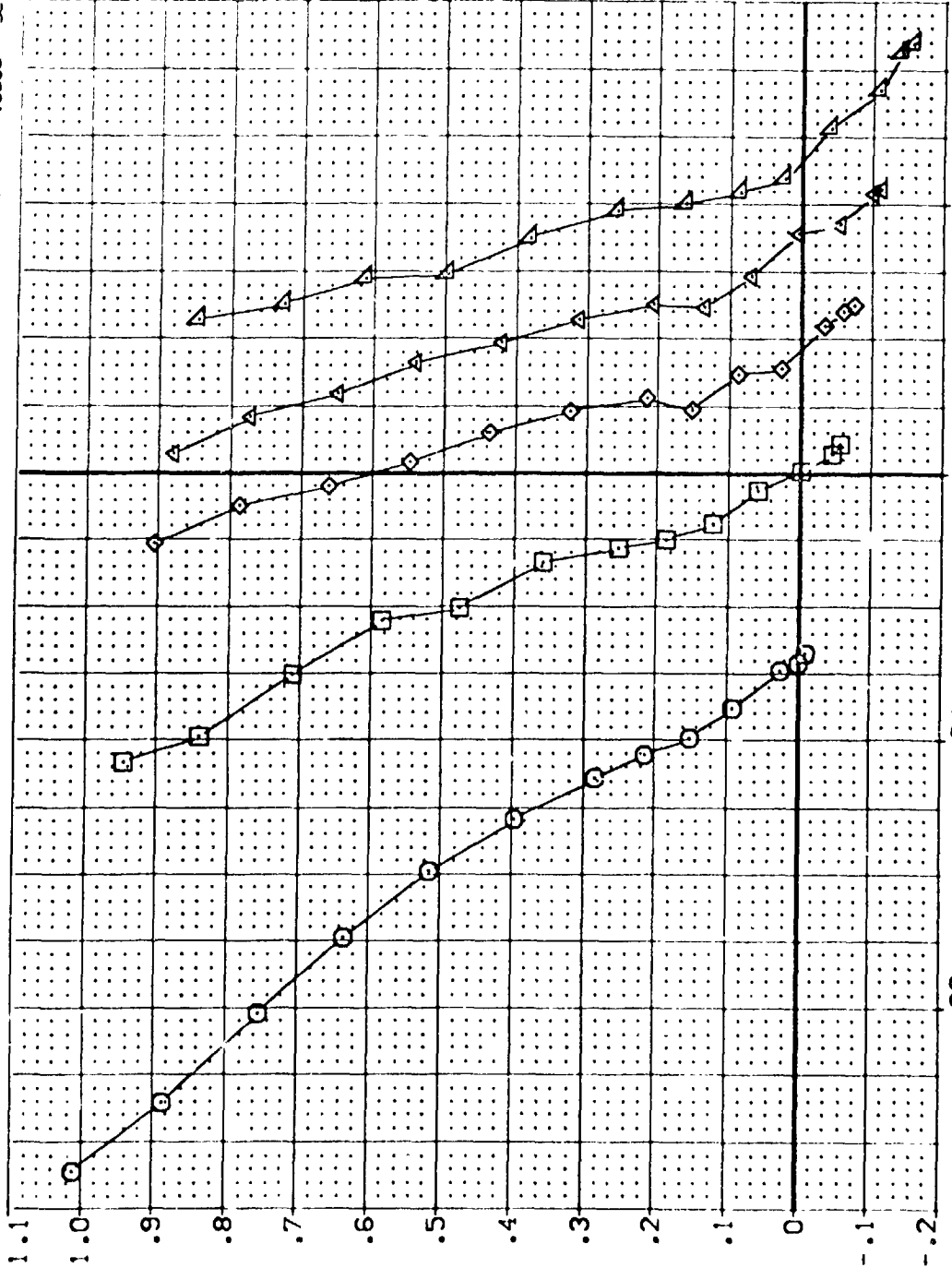


PITCHING MOMENT COEFFICIENT (Cm) C.G., CLMAFT

FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
TEL003	ARC 87-747 OAS3C B C M F VI	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
TEL011	ARC 87-747 OAS3C B C M F VI	.000	.000	-11.700	55.000	LPREF 14.2440
TEL002	ARC 87-747 OAS3C B C M F VI	-10.000	.000	-11.700	55.000	BPREF 28.1000
TEL019	ARC 87-747 OAS3C B C M F VI	-20.000	.000	-11.700	55.000	VPREF 30.5000
TEL023	ARC 87-747 OAS3C B C M F VI	-40.000	.000	-11.700	55.000	ZVPREF 11.2000
						SCALE 1.0300



NORMAL FORCE COEFFICIENT, CN

PITCHING MOMENT COEFFICIENT (FWD C.G.). CLMFWD

FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(TELO03)	ARC 87-747 DA53C B C M F V I V	NO.	RV/L	.000	.000	-11.700	55.000	SREF 2.4210
(TELO11)	ARC 87-747 DA53C B C M F V I V	NO.	RV/L	.000	.000	-11.700	55.000	LREF 14.2440
(TELO02)	ARC 87-747 DA53C B C M F V I V	NO.	RV/L	-10.000	.000	-11.700	55.000	BREF 28.1004
(TELO19)	ARC 87-747 DA53C B C M F V I V	NO.	RV/L	-20.000	.000	-11.700	55.000	XREF 32.3210
(TELO23)	ARC 87-747 DA53C B C M F V I V	NO.	RV/L	-40.000	.000	-11.700	55.000	YREF .0000
								ZREF 11.2500
								SCALE .0300

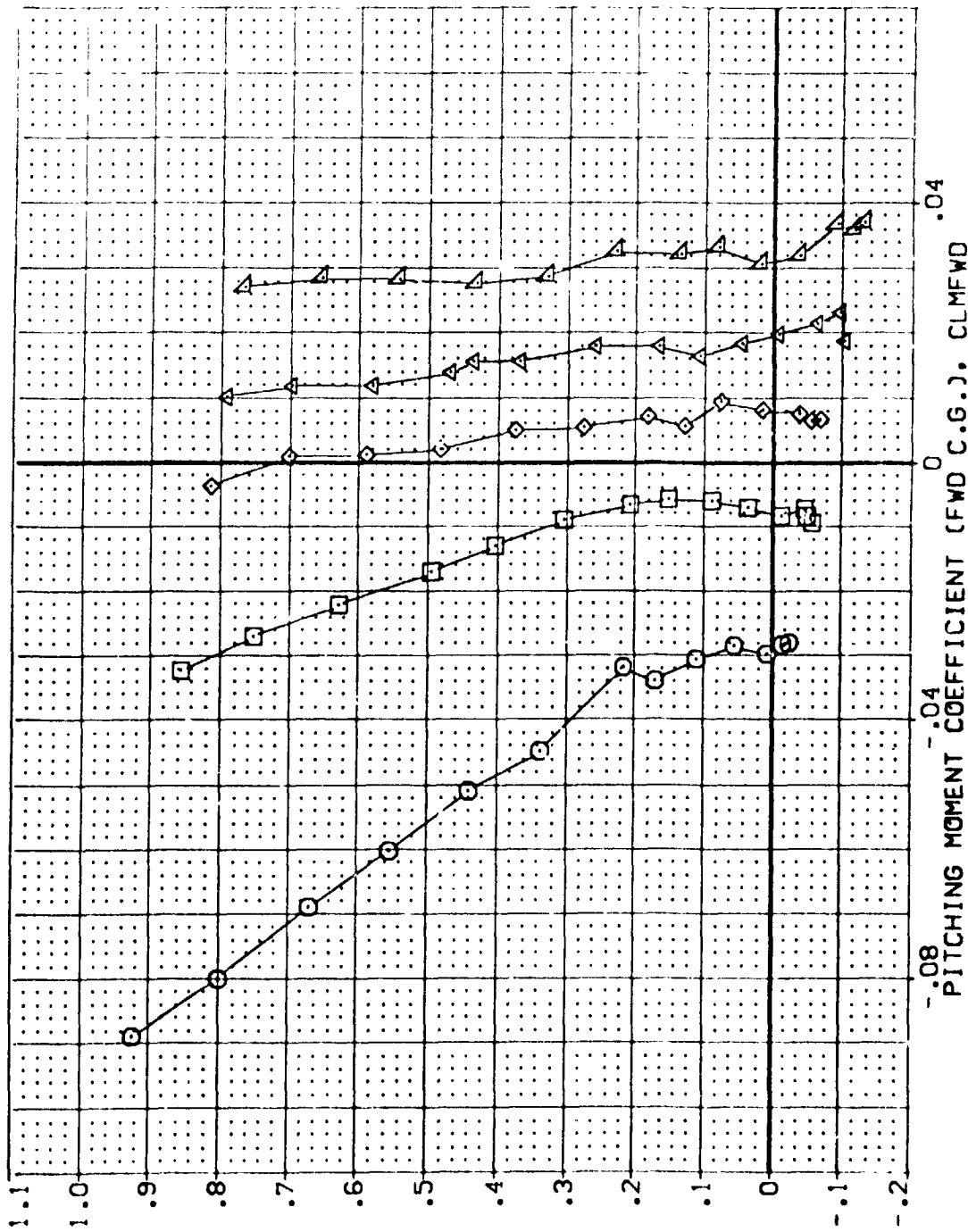
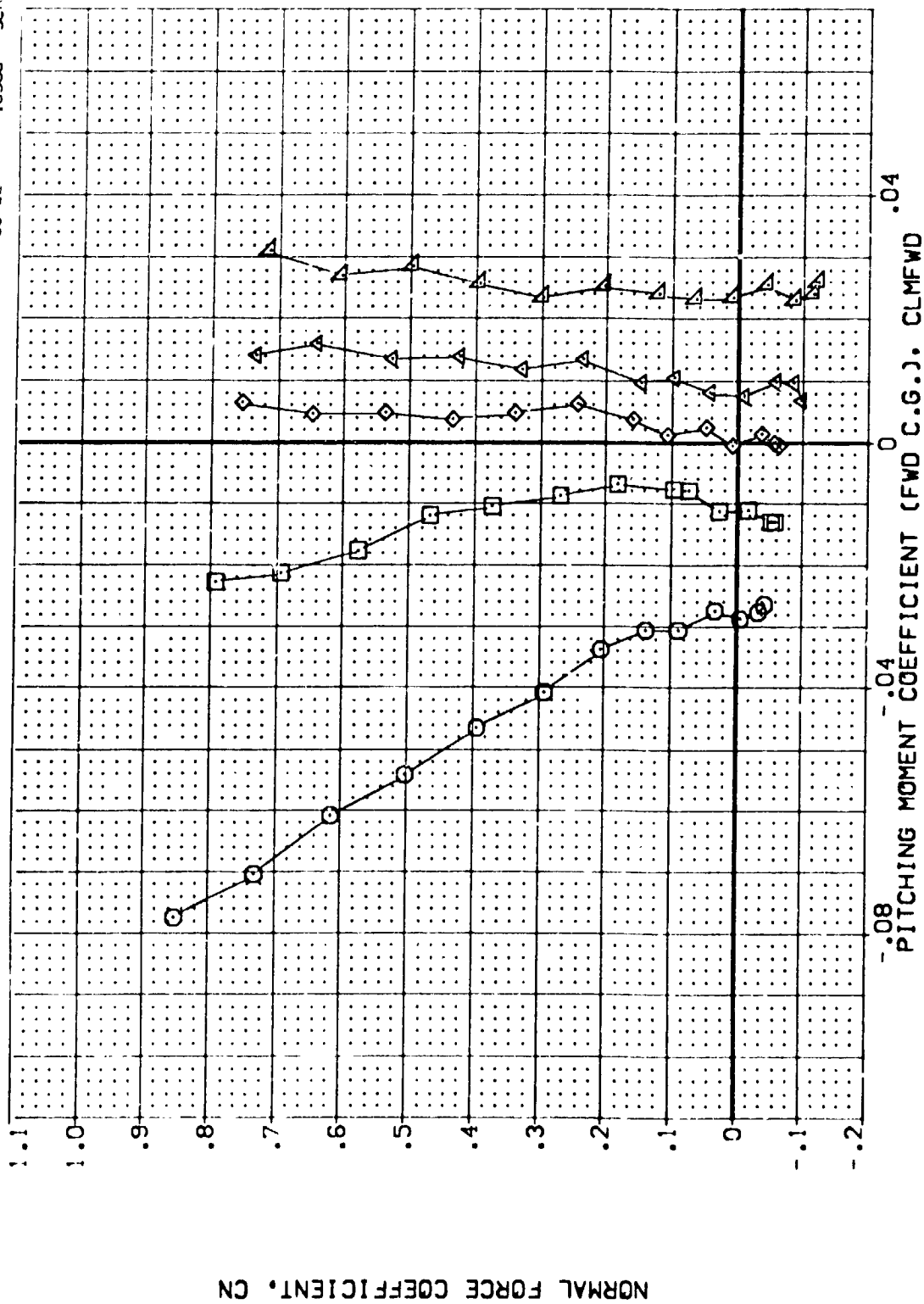


FIG. 7 ELEVON EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF. INFO	REFERENCE INFORMATION
(TEL003)	ARC 87-747 OAS3C B C M F V	SREF	2.4210 SQ.FT.
(TEL001)	ARC 87-747 OAS3C B C M F V	LREF	14.2440
(TEL002)	ARC 87-747 OAS3C B C M F V	BREF	28.1004
(TEL003)	ARC 87-747 OAS3C B C M F V	XMRP	32.3010
(TEL003)	ARC 87-747 OAS3C B C M F V	YMRP	11.2500
		ZMRP	11.2500
		SCALE	11.2500



DATA SET SYMBL	CONFIGURATION DESCRIPTION	NO.1	NO.2	NO.3	NO.4	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(TEL003)	ARC 87-747 CAS3C B C M F V I	V	V	V	V	15.000	.000	-11.700	55.000	SREF 2.4210 SC.FT.
(TEL011)	ARC 87-747 CAS3C B C M F V I	V	V	V	V	10.000	.000	-11.700	55.000	LREF 14.2440
(TEL002)	ARC 87-747 CAS3C B C M F V I	V	V	V	V	-10.000	.000	-11.700	55.000	BREF 28.1004
(TEL019)	ARC 87-747 CAS3C B C M F V I	V	V	V	V	-20.000	.000	-11.700	55.000	XREF 32.3010
(TEL023)	ARC 87-747 CAS3C B C M F V I	V	V	V	V	-40.000	.000	-11.700	55.000	YREF 32.3010
										ZREF 32.3010
										SCALE 11.000
										SCALE 1.000

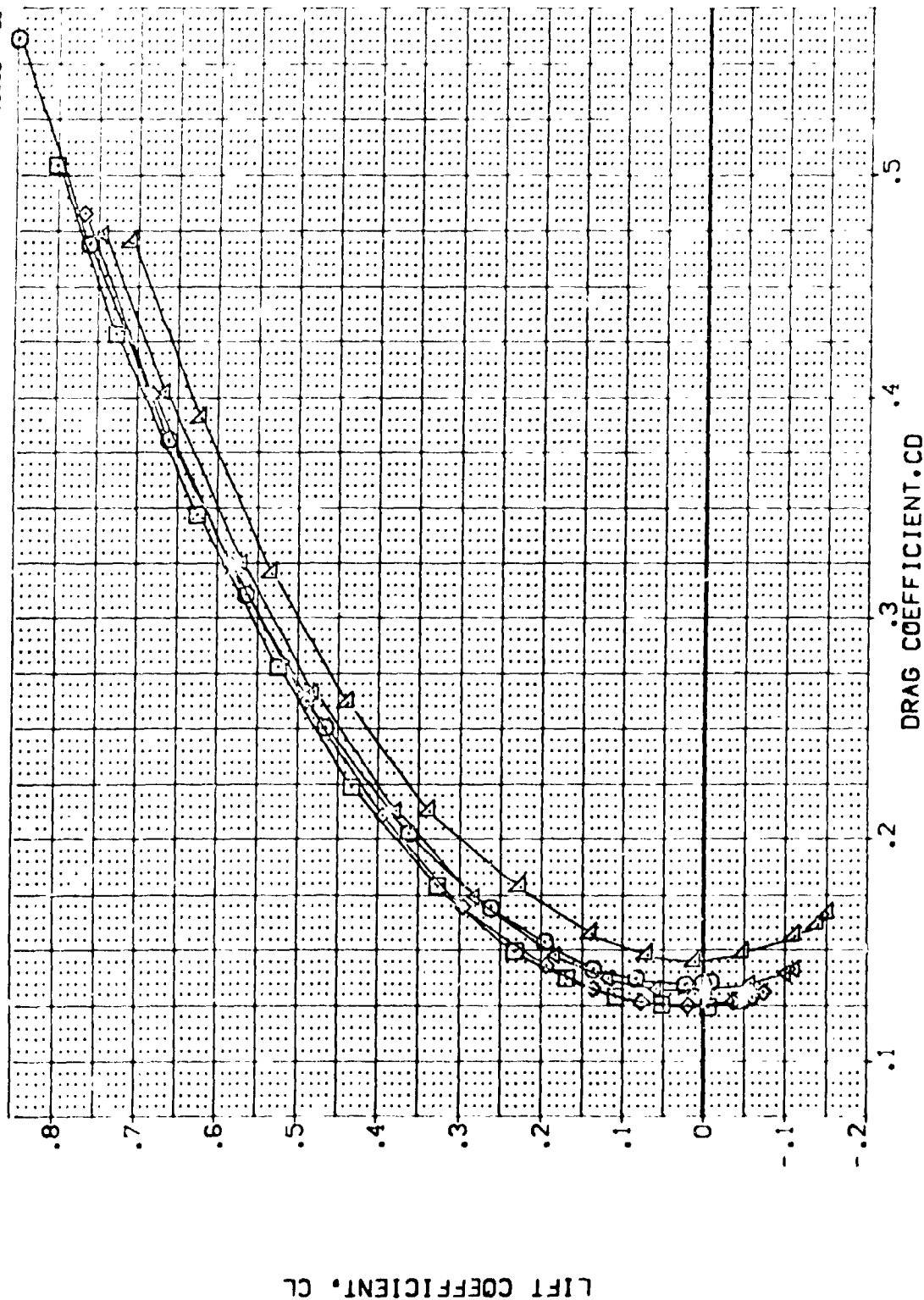


FIG. 7 ELEVON EFFECTS  
CAJ MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF. INFO	SCALE
TELO03	ARC 87-747 DASSC B C M F V I	SREF 2.4210	SO.FT.
TELO01	ARC 87-747 DASSC B C M F V I	LREF 14.2440	N.
TELO02	ARC 87-747 DASSC B C M F V I	BREF 28.1004	N.
TELO03	ARC 87-747 DASSC B C M F V I	XMRP 32.9010	N.
TELO04	ARC 87-747 DASSC B C M F V I	YMRP .0000	N.
TELO05	ARC 87-747 DASSC B C M F V I	ZMRP 11.2500	N.
TELO06	ARC 87-747 DASSC B C M F V I	SCALE .0300	SCALE

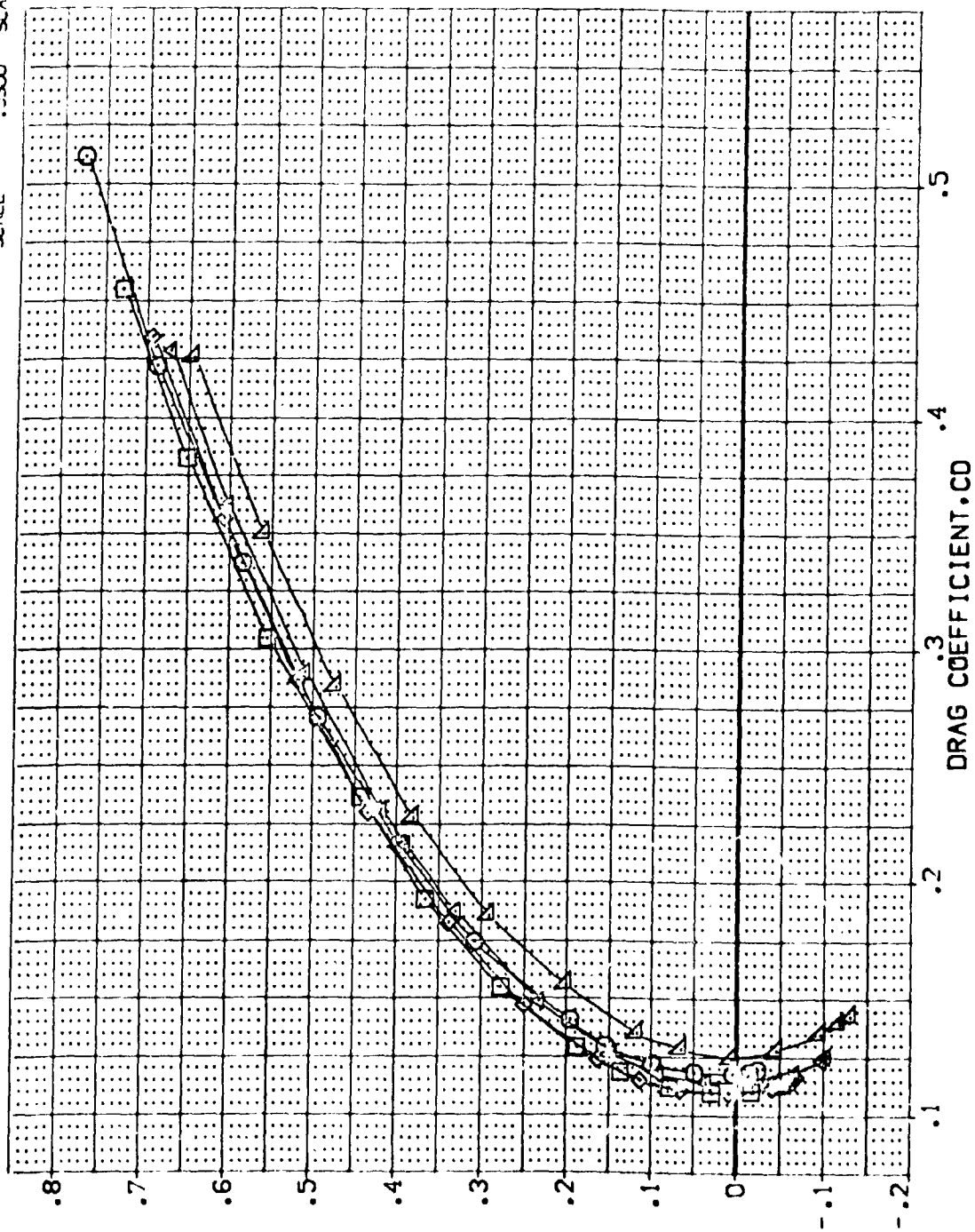


FIG. 7 ELEVON EFFECTS  
(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON	RV/L	ELEVON	AIRLON	BOFLAP	SPDBRK	REFERENCE INFORMATION
(TELO03)	ARC 87-747 OAS3C B C M F VI	V	RV/L	15.000	.000	-11.700	55.000	SREF 2.4210 SQ FT.
(TELO11)	ARC 87-747 OAS3C B C M F VI	V	RV/L	.000	.000	-11.700	55.000	LREF 14.2440 IN.
(TELO02)	ARC 87-747 OAS3C B C M F VI	V	RV/L	-10.000	.000	-11.700	55.000	BREF 28.1004 IN.
(TELO19)	ARC 87-747 OAS3C B C M F VI	V	RV/L	-20.000	.000	-11.700	55.000	XREF 32.3010 IN.
(TELO23)	ARC 87-747 OAS3C B C M F VI	V	RV/L	-40.000	.000	-11.700	55.000	YREF .0000 IN.
								ZREF 11.2500 IN.
								SCALE .0300

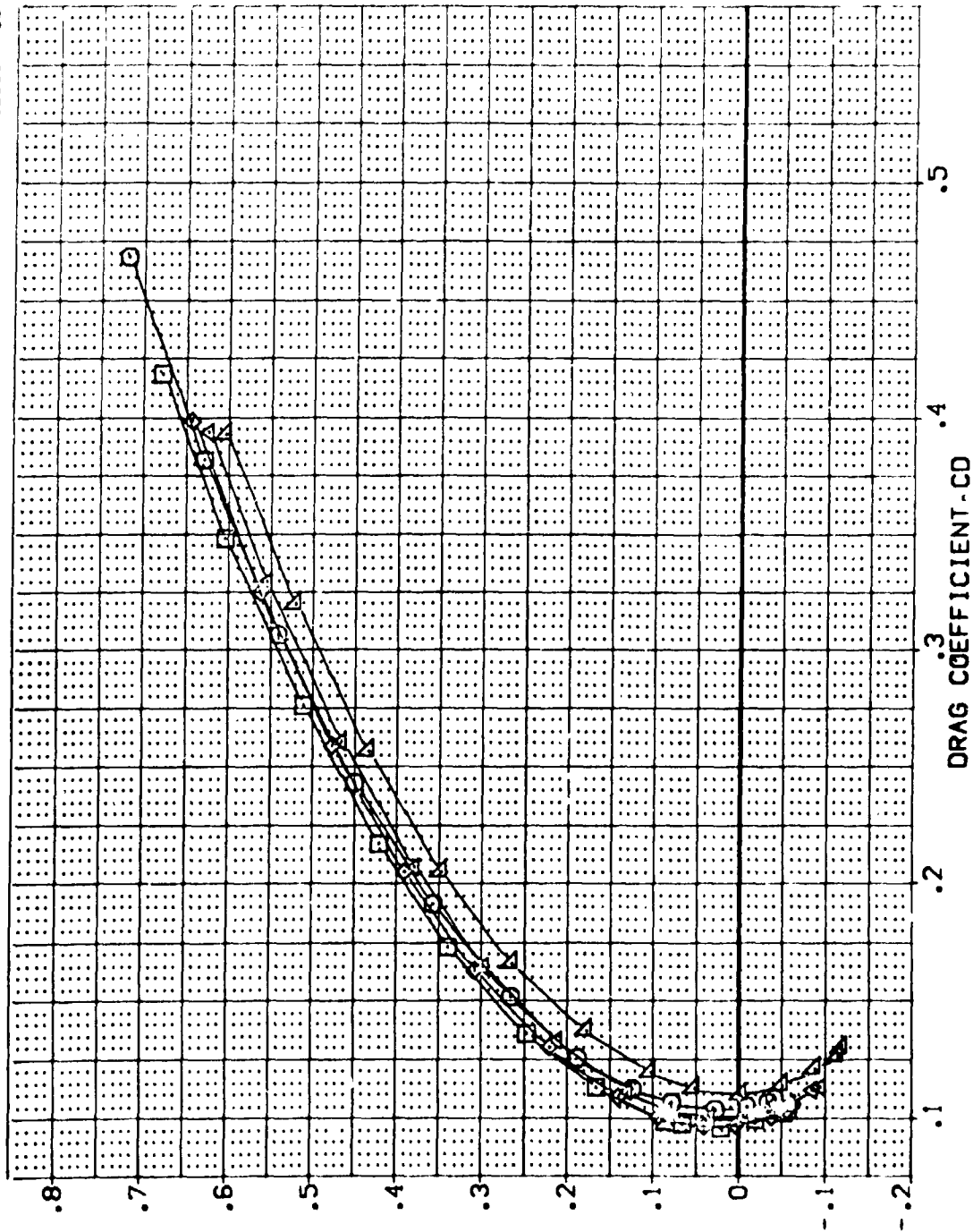


FIG. 7 ELEVON EFFECTS  
(C)MACH = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    NOM. RV/L    ELEVON    AIRLON    BOFLAP    SPDBRK    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM. RV/L	ELEVON	AIRLON	BOFLAP	SPDBRK	REFERENCE INFORMATION
TEL003	ARC 87-747 DASSC B C M F VI	V	15.000	.000	-11.700	55.000	SREF 2.410 SQ.FT.
TEL011	ARC 87-747 DASSC B C M F VI	V	.000	.000	-11.700	55.000	LREF 14.240
TEL002	ARC 87-747 DASSC B C M F VI	V	-10.000	.000	-11.700	55.000	BREF 28.1004
TEL019	ARC 87-747 DASSC B C M F VI	V	-20.000	.000	-11.700	55.000	XREF 32.3000
TEL023	ARC 87-747 DASSC B C M F VI	V	-40.000	.000	-11.700	55.000	ZREF 11.2500
							SCALE 11.2500

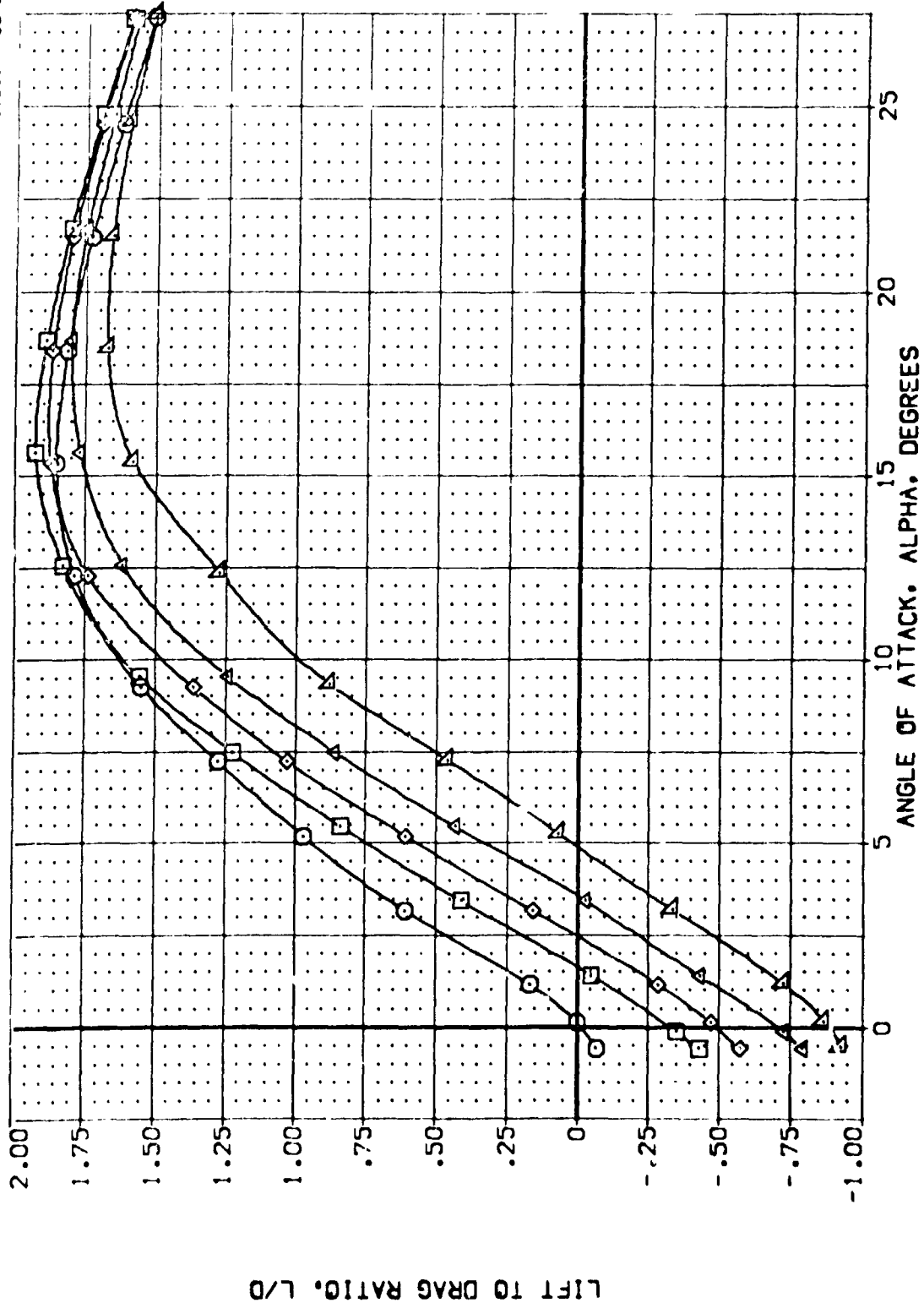


FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[ELOC03]	ARC 87-747 CAS3C B C H F VI	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[ELOC11]	ARC 87-747 CAS3C B C H F VI	15.000	.000	-11.700	55.000	LREF 14.2440
[ELOC02]	ARC 87-747 CAS3C B C H F VI	-10.000	.000	-11.700	55.000	GREF 28.1004
[ELOC19]	ARC 87-747 CAS3C B C H F VI	-20.000	.000	-11.700	55.000	XMRD 32.3010
[ELOC23]	ARC 87-747 CAS3C B C H F VI	-40.000	.000	-11.700	55.000	YMRD 11.2500
						SCALE .0300

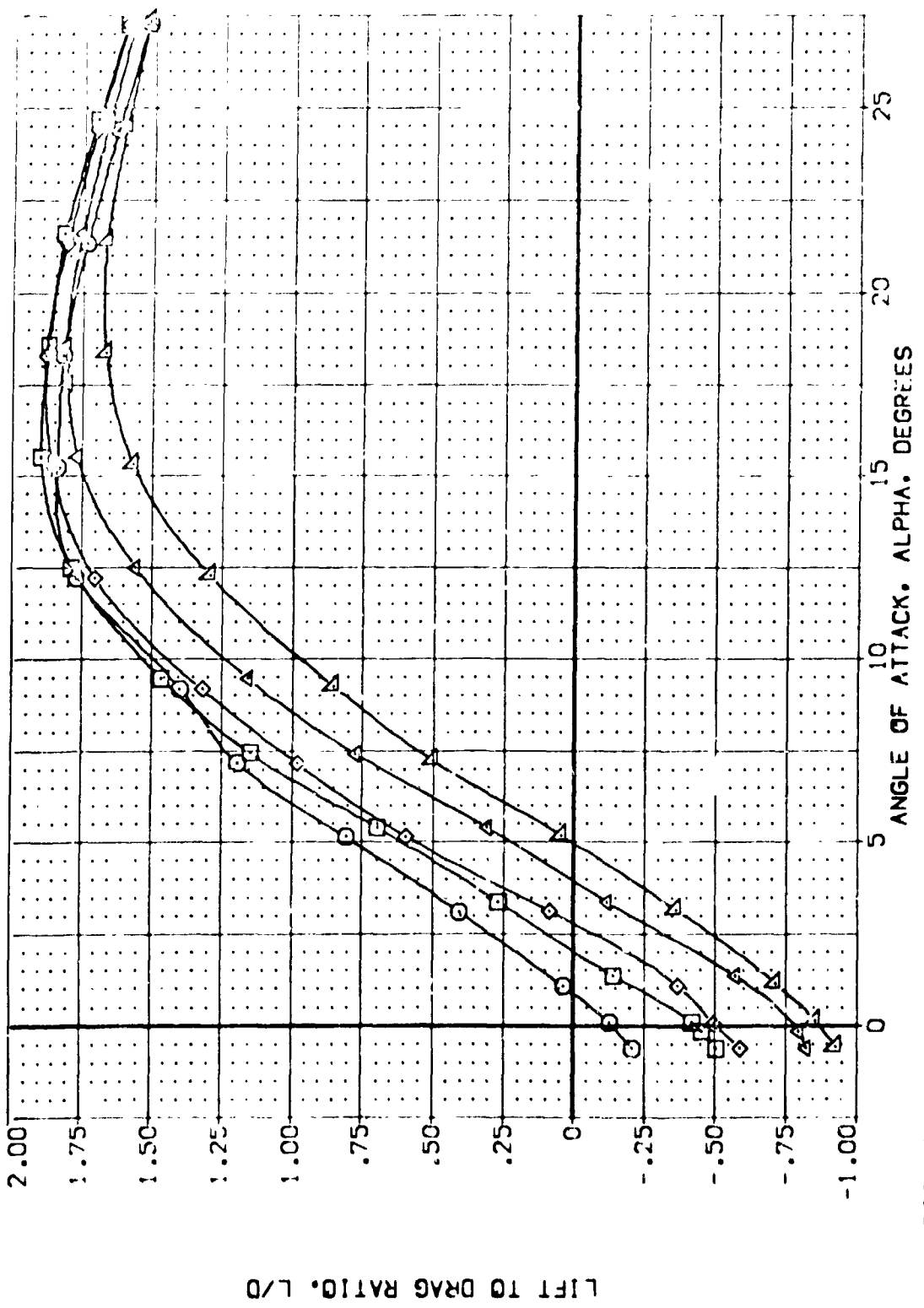


FIG. 7 ELEVON EFFECTS  
(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON.	RV/L	ELEVON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
0001	ARC 87-747 BASIC B C M F V I V	NON.	RV/L	15.000	.000	-11.700	55.000	SREF 2.4210 SC.FT.
0002	ARC 87-747 BASIC B C M F V I V	NON.	RV/L	.000	.000	-11.700	55.000	LREF 14.2450
0003	ARC 87-747 BASIC B C M F V I V	NON.	RV/L	-10.000	.000	-11.700	55.000	EREF 30.1000
0004	ARC 87-747 BASIC B C M F V I V	NON.	RV/L	-20.000	.000	-11.700	55.000	AVREF 32.0000
0005	ARC 87-747 BASIC B C M F V I V	NON.	RV/L	-40.000	.000	-11.700	55.000	VMREF 30.0000
								VMREF 30.0000
								SCALE 11.0000
								SCALE

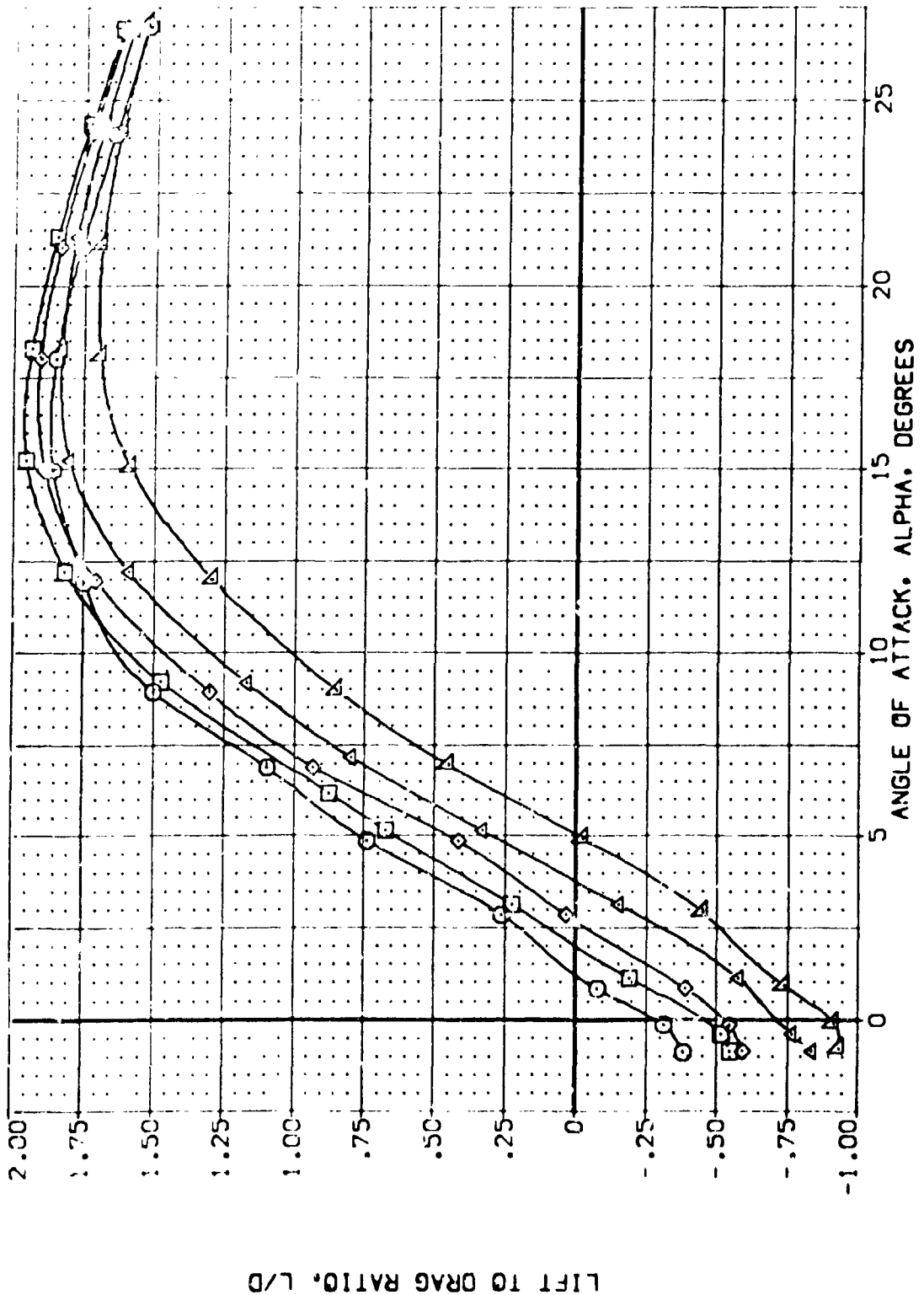


FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50



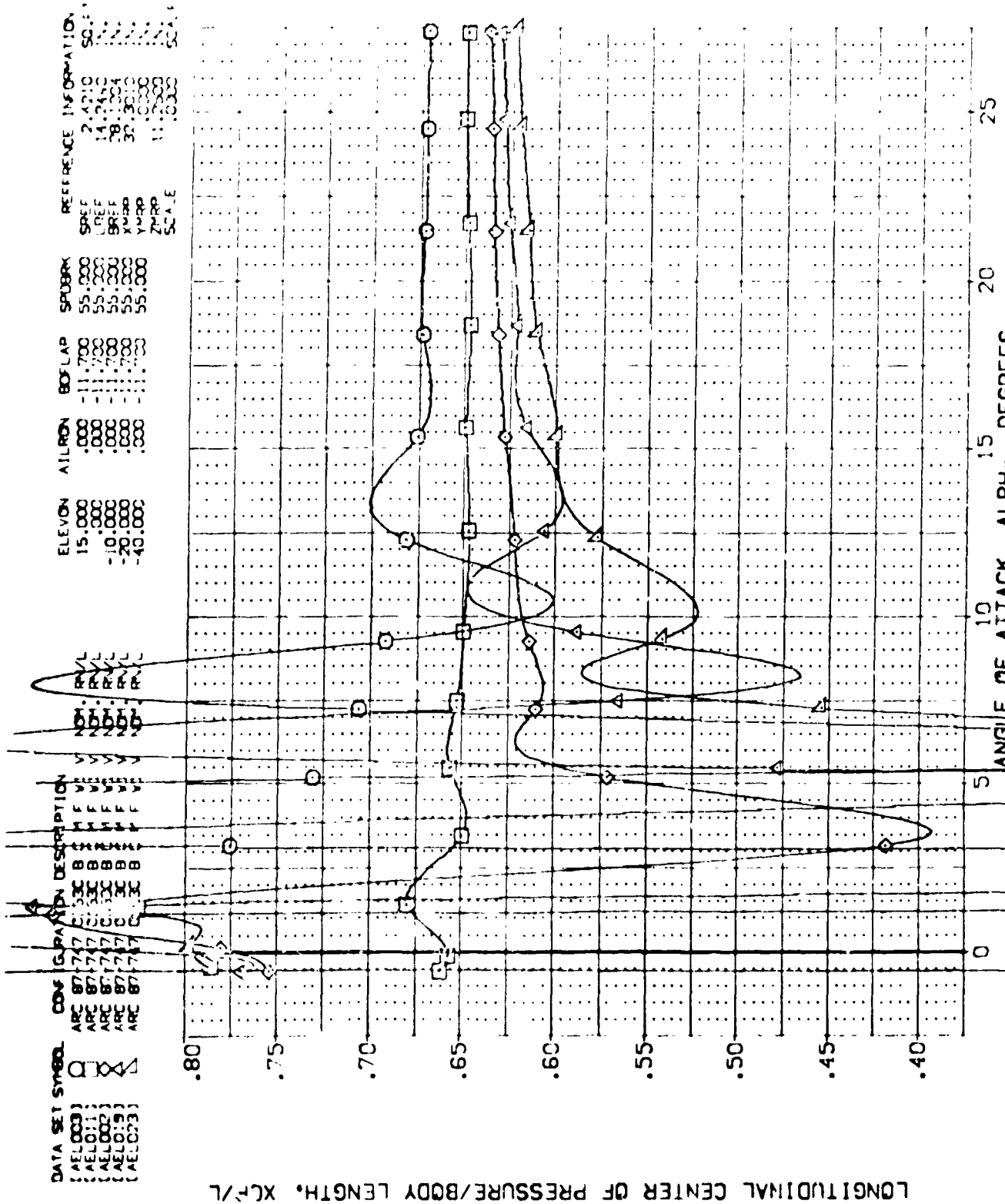


FIG. 7 ELEVON EFFECTS

(M)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 ( ) ARC 87-74T 24333C 87-74T 24333C 87-74T 24333C  
 ( ) ARC 87-74T 24333C 87-74T 24333C 87-74T 24333C  
 ( ) ARC 87-74T 24333C 87-74T 24333C 87-74T 24333C  
 ( ) ARC 87-74T 24333C 87-74T 24333C 87-74T 24333C

ELEVON AILRON BOFLAP SPOON  
 15.000 .000 700 55.000  
 10.000 .000 700 55.000  
 -20.000 .000 700 55.000  
 -40.000 .000 700 55.000

REF REF REF REF REF  
 2.4210 1.4110 1.4110 1.4110 1.4110

REFERENCE INFORMATION SCALE  
 2.4210 1.4110 1.4110 1.4110 1.4110  
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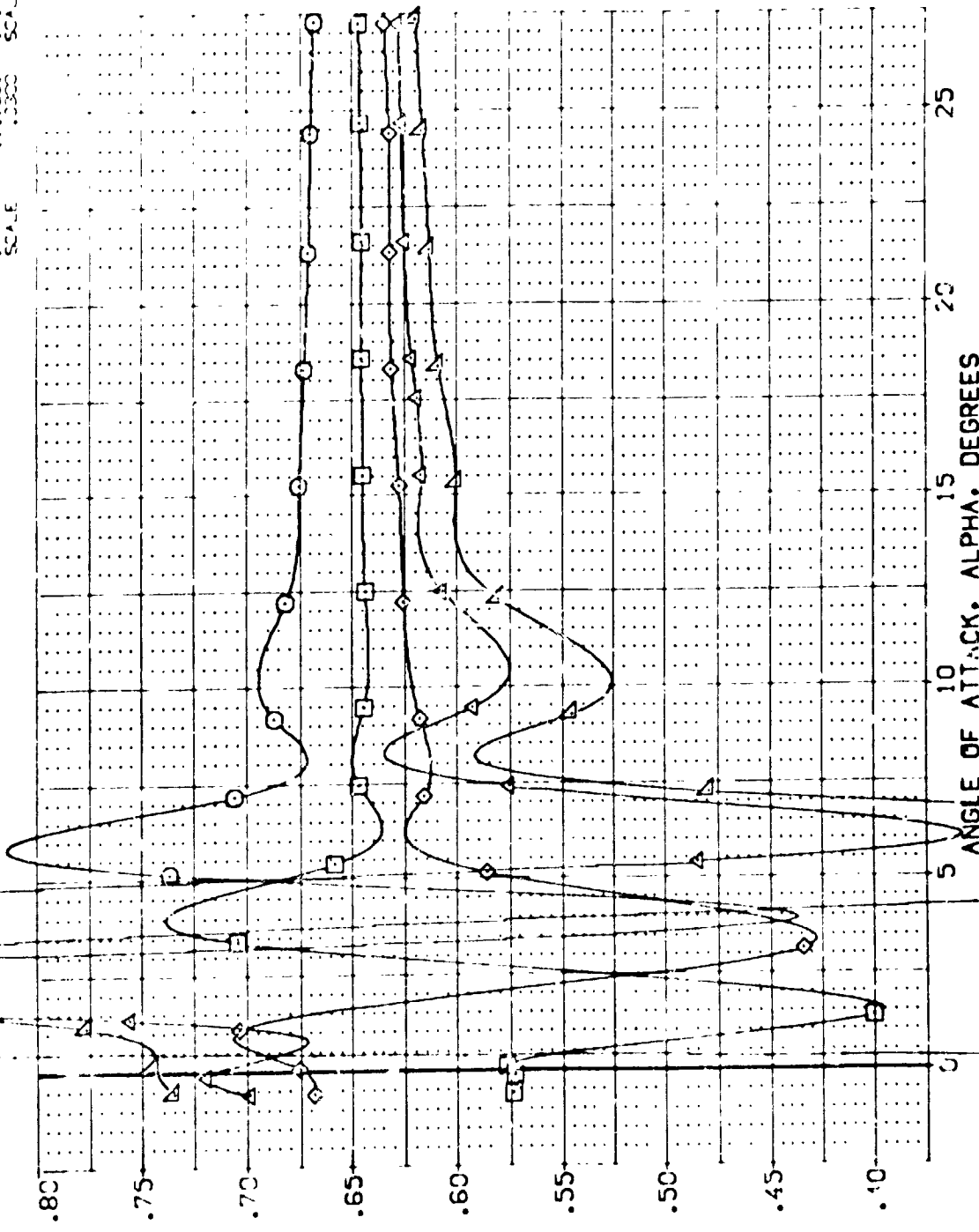
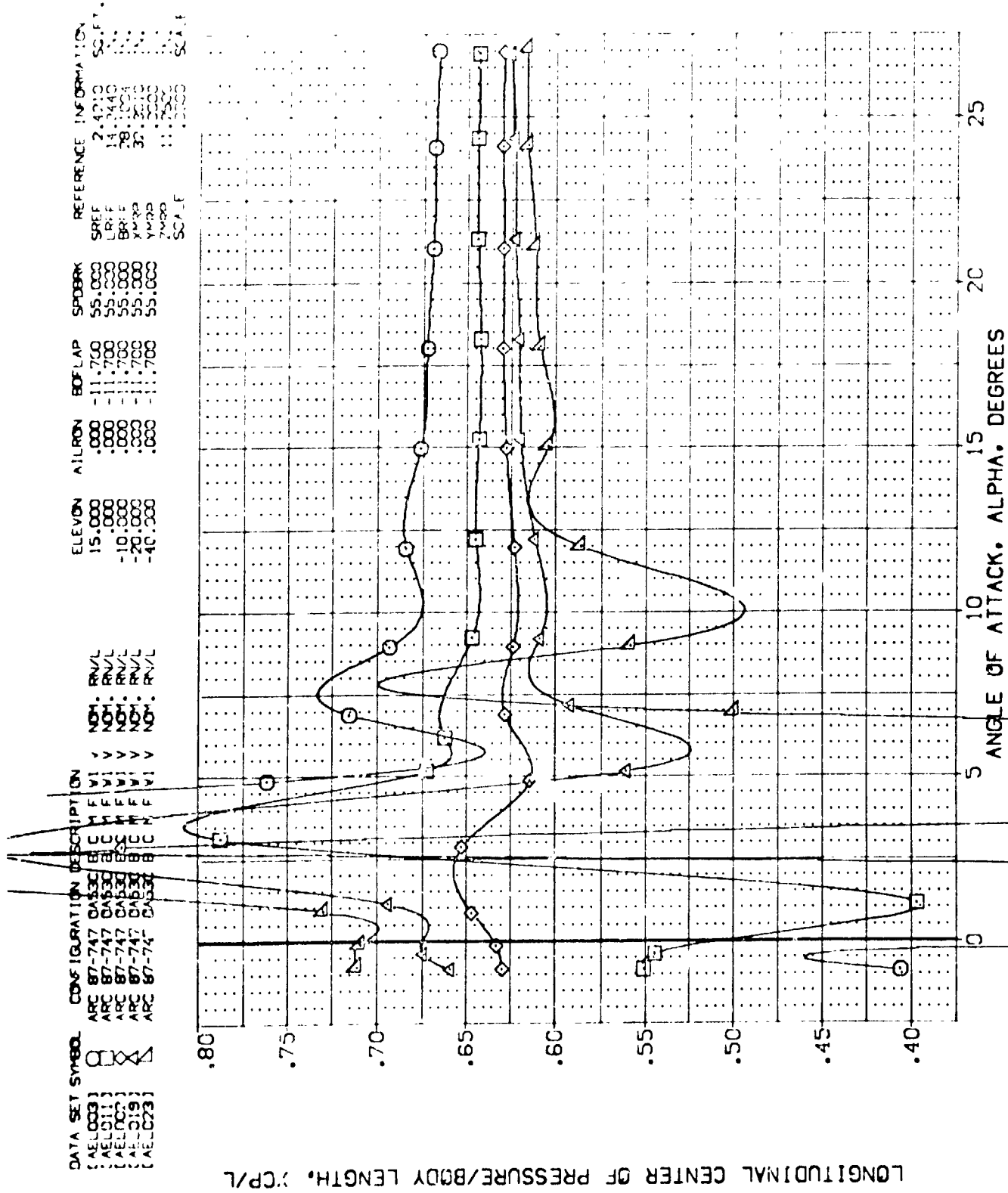


FIG. 7 ELEVON EFFECTS  
 (B)MACH = 3.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION DE AILRON BOFLAP SPOBRK REFERENCE INFORMATION SCALE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION	SCALE
(VE-003)	ARC 87-747 C-53C B C M F VI V	15.000	.000	-11.700	55.000	SPREF 2.4210	50.000
(VE-002)	ARC 87-747 C-53C B C M F VI V	-10.000	.000	-11.700	55.000	REF 14.2440	50.000
(VE-001)	ARC 87-747 C-53C B C M F VI V	-20.000	.000	-11.700	55.000	BPREF 30.1000	50.000
(VE-003)	ARC 87-747 C-53C B C M F VI V	-40.000	.000	-11.700	55.000	XREF 30.1000	50.000
						YREF 11.0000	50.000
						ZREF 11.0000	50.000

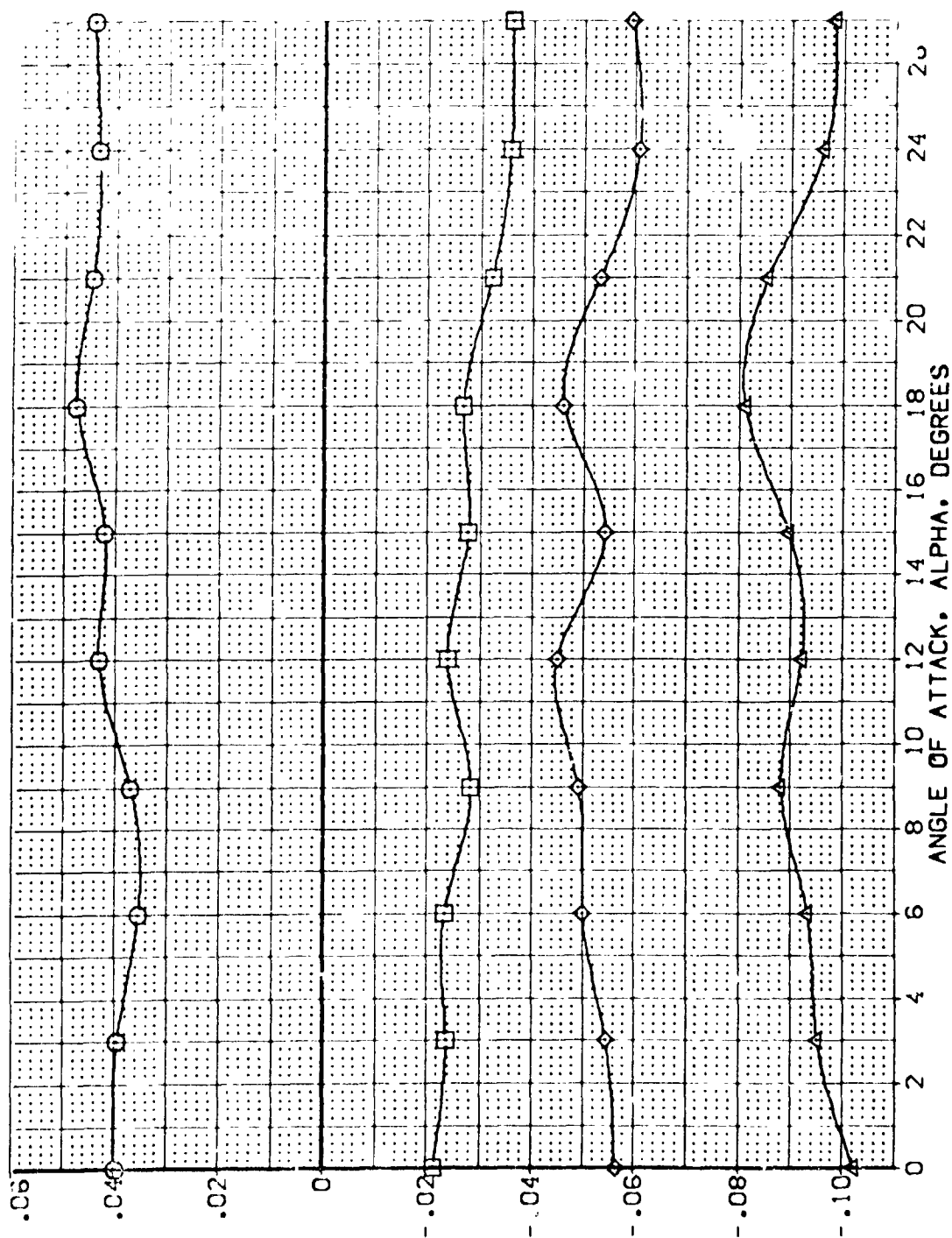


FIG. 7 ELEVON EFFECTS

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[A-003]	ARC 87-747 DASSC B C M F VI	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[A-002]	ARC 87-747 DASSC B C M F VI	-10.000	.000	-11.700	55.000	REF 14.2440
[A-001]	ARC 87-747 DASSC B C M F VI	-20.000	.000	-11.700	55.000	BREF 28.1004
[A-000]	ARC 87-747 DASSC B C M F VI	-40.000	.000	-11.700	55.000	XMR0 37.3010
						YMR0 .0000
						ZMR0 11.2500
						SCALE 0.000

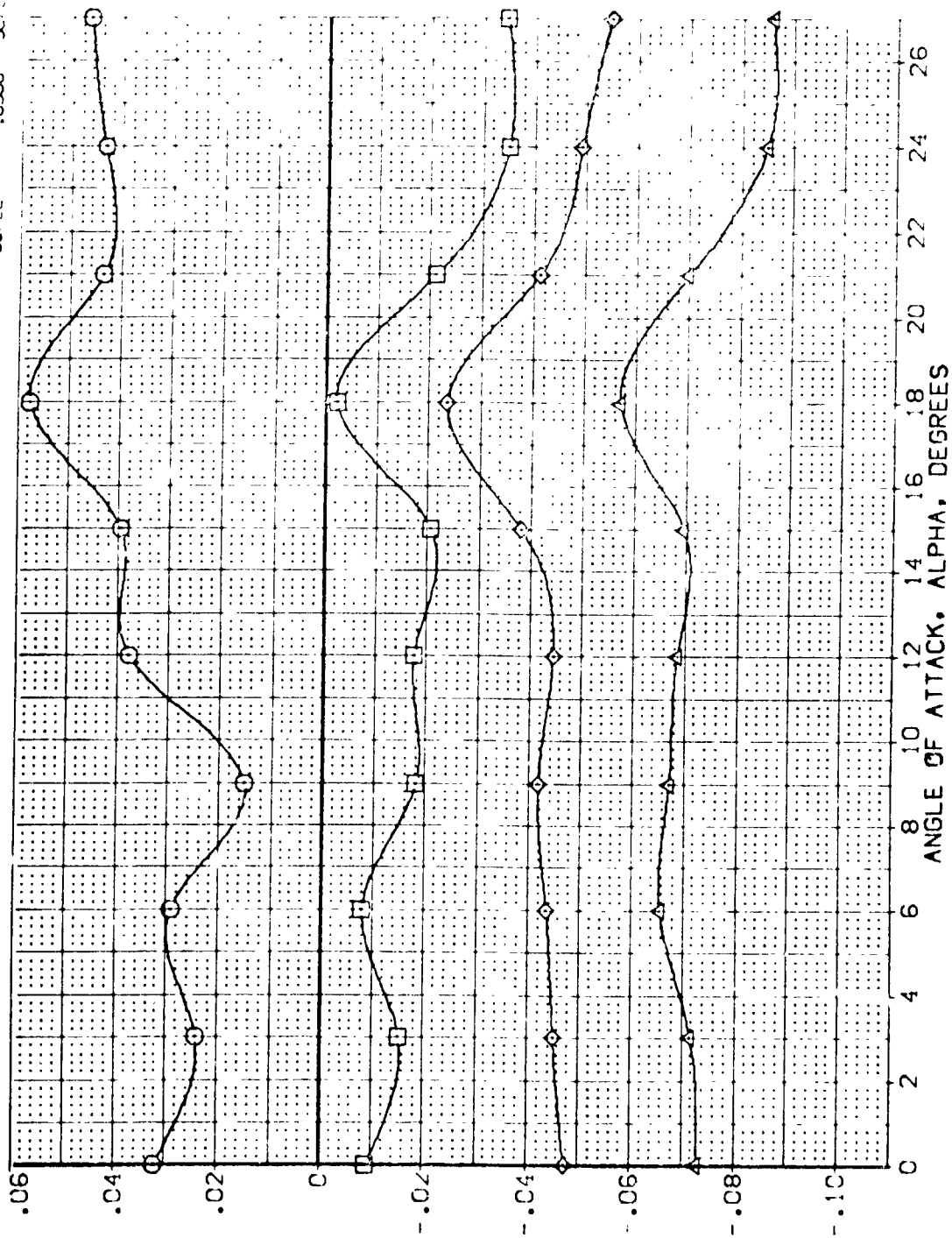


FIG. 7 ELEVON EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AILRON	BDF LAP	SPDBRK	REFERENCE INFORMATION
(VELOC2)	ARC 87-747 CAS3C B C M F V	15.000	.000	-11.700	55.000	SREF 2.42:0 SQ.FT.
(VELOC2)	ARC 87-747 CAS3C B C M F V	-10.000	.000	-11.700	55.000	LREF 14.24:0
(VELOC2)	ARC 87-747 CAS3C B C M F V	-20.000	.000	-11.700	55.000	BREF 28.10:1
(VELOC2)	ARC 87-747 CAS3C B C M F V	-40.000	.000	-11.700	55.000	XREF 32.30:0
						YREF .0000
						ZREF .0000
						SCALE 11.2500
						SCALE .0300

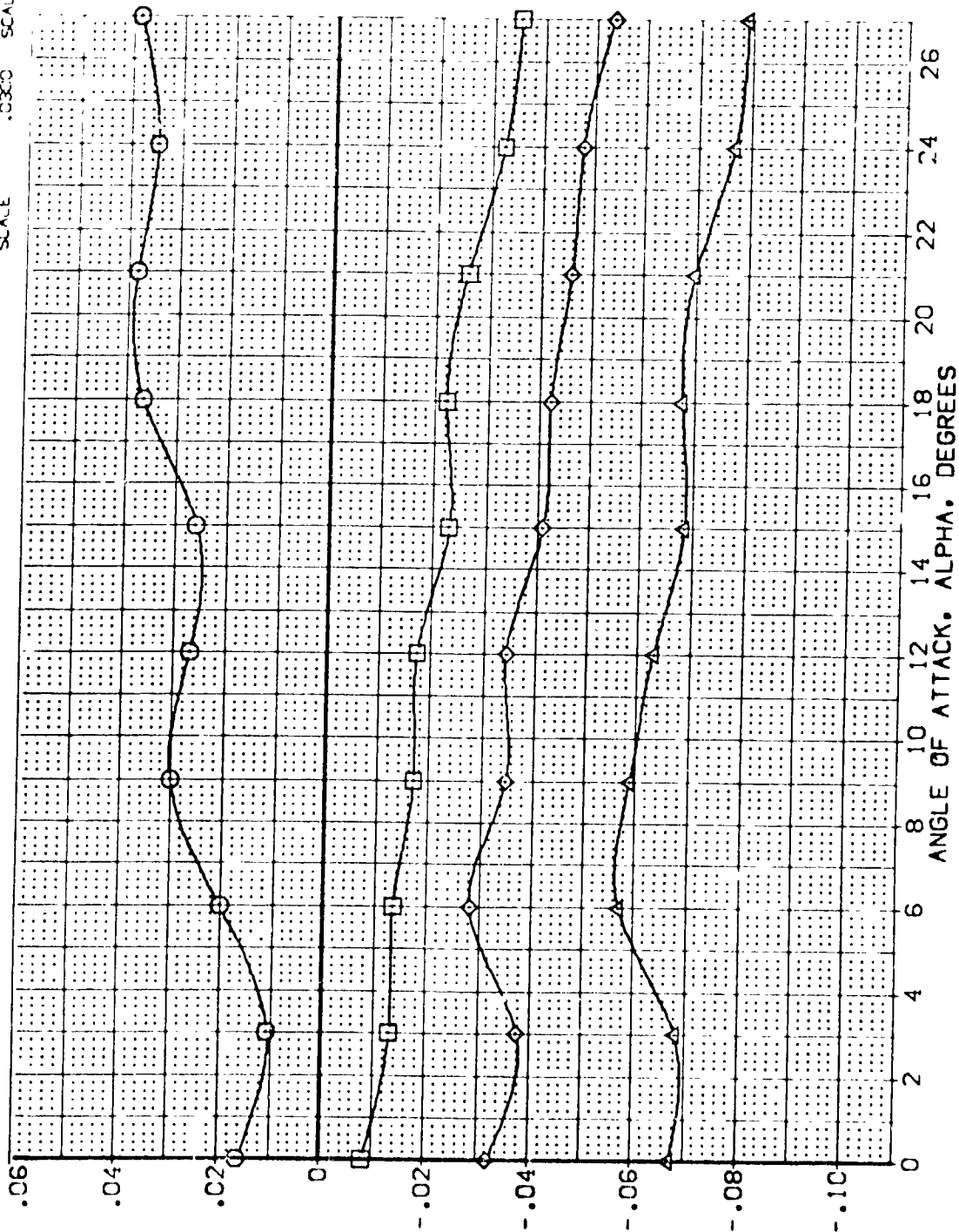


FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AIRRON	BDF LAP	SPOBRK	REFERENCE INFORMATION
[VELOC3]	ARC 87-747 CAS3C B C M F VI V	15.000	.000	-11.700	55.000	SREF 2.4213 SQ.FT.
[VELOC2]	ARC 87-747 CAS3C B C M F VI V	-10.000	.000	-11.700	55.000	LREF 14.2440
[VELOC19]	ARC 87-747 CAS3C B C M F VI V	-20.000	.000	-11.700	55.000	BREF 28.1004
[VELOC73]	ARC 87-747 CAS3C B C M F VI V	-40.000	.000	-11.700	55.000	KREF 32.3013

YREF 0000  
ZREF 0000  
SCALE 11.7500  
SCALE .0300

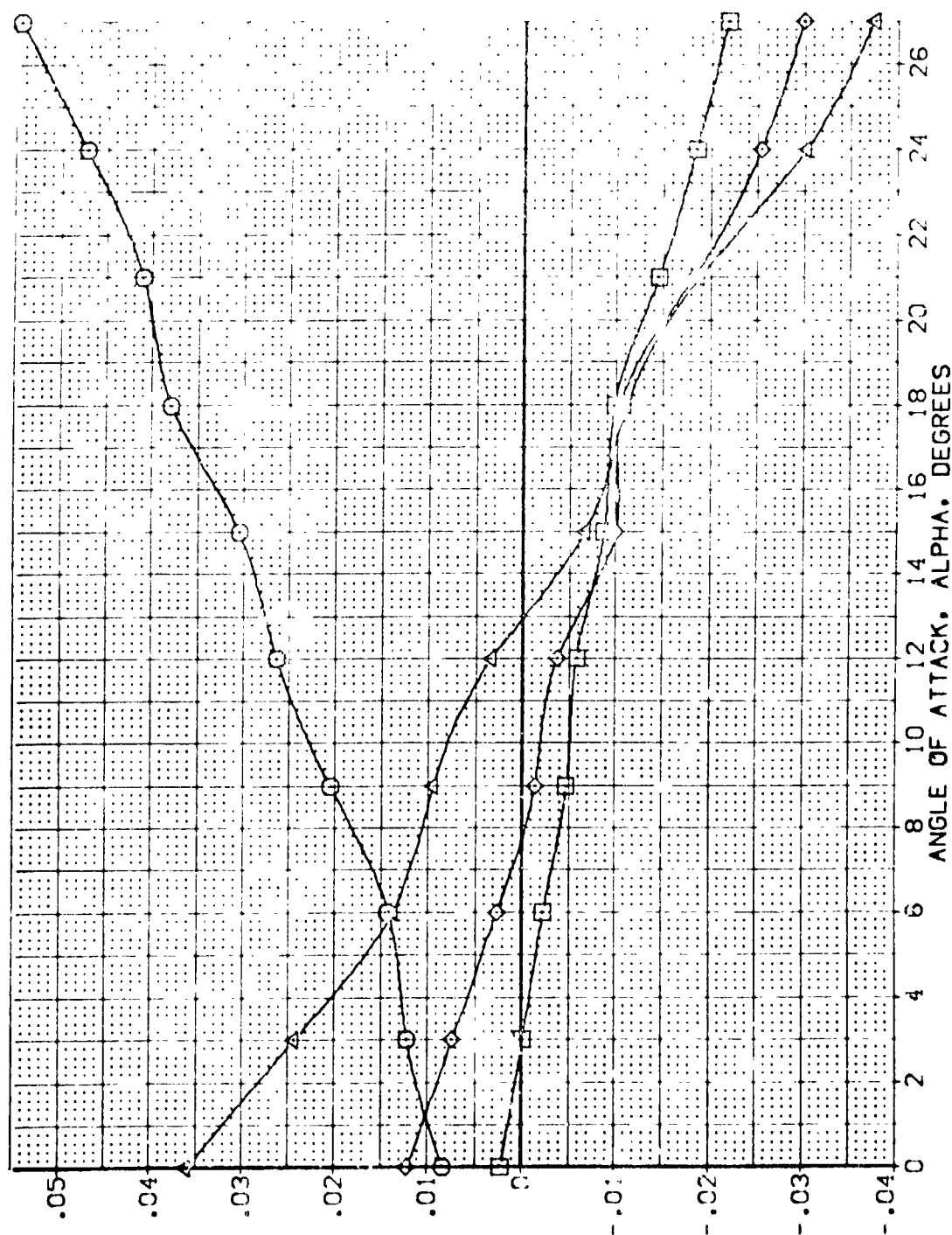


FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AILERON	BOFLAP	SPODBK	REFERENCE INFORMATION
(VE-003)	ARC 87-747 OAS3C B C M F VI V	15.000	.000	-11.700	55.000	SREF 2.4210 SC.FT.
(VE-002)	ARC 87-747 OAS3C B C M F VI V	-10.000	.000	-11.700	55.000	REF 14.2440
(VE-019)	ARC 87-747 OAS3C B C M F VI V	-20.000	.000	-11.700	55.000	BOFL 28.1004
(VE-023)	ARC 87-747 OAS3C B C M F VI V	-40.000	.000	-11.700	55.000	XREF 32.2010
						YREF 11.2500
						ZREF 11.2500
						SCALE .0000

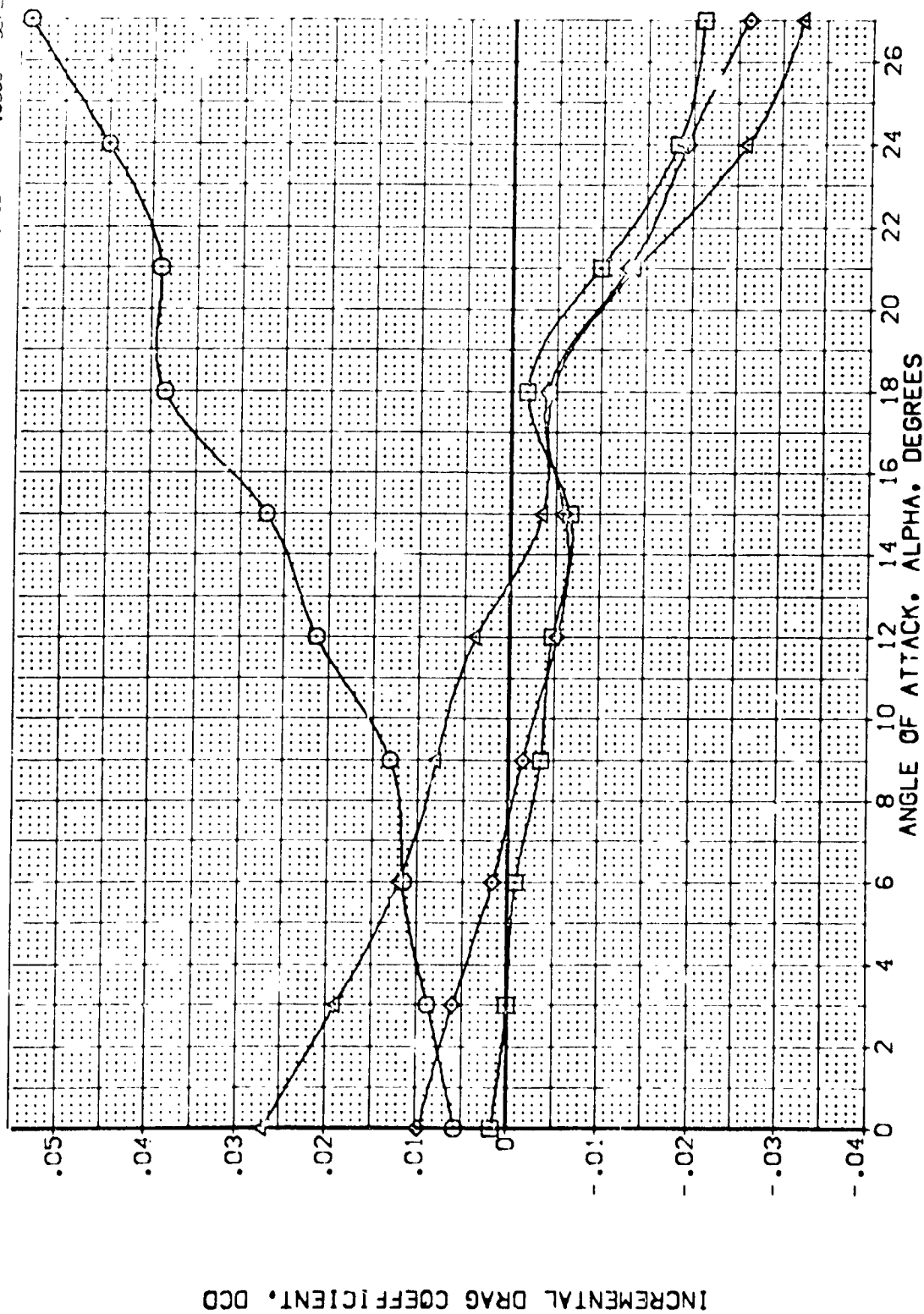
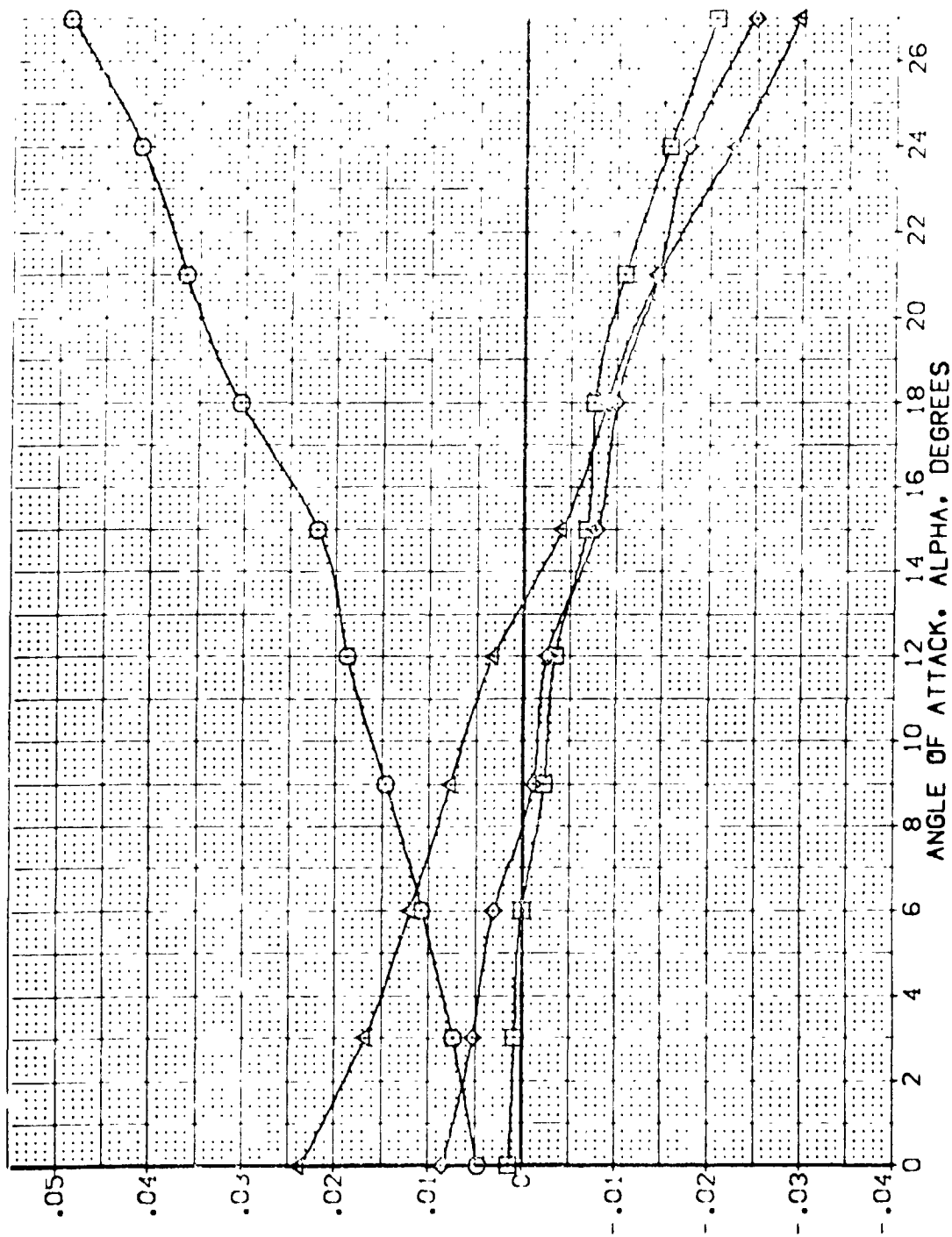


FIG. 7 ELEVON EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VEL003)	ARC 87-747 CAS3C B C M F V V	15.000	.000	-11.700	55.000	SREF 2.4210 SC.FT.
(VEL002)	ARC 87-747 CAS3C B C M F V V	-10.000	.000	-11.700	55.000	REF 14.2440
(VEL019)	ARC 87-747 CAS3C B C M F V V	-20.000	.000	-11.700	55.000	REF 28.1004
(VEL023)	ARC 87-747 CAS3C B C M F V V	-40.000	.000	-11.700	55.000	REF 32.3010
						YREF .0000
						ZREF 11.7500
						SCALE .0300



INCREMENTAL DRAG COEFFICIENT, DCD

FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AILRON	BDF LAP	SPOBRK	REFERENCE INFORMATION	
[VEL003]	ARC 87-747 D453C B C M F V	15.000	.000	-11.700	55.000	SREF	2.4210
[VEL002]	ARC 87-747 D453C B C M F V	-10.000	.000	-11.700	55.000	UREF	14.2440
[VEL001]	ARC 87-747 D453C B C M F V	-20.000	.000	-11.700	55.000	SREF	28.1004
[VEL023]	ARC 87-747 D453C B C M F V	-40.000	.000	-11.700	55.000	XREF	32.3000
						YREF	0.0000
						ZREF	11.2000
						SCALE	0.0300

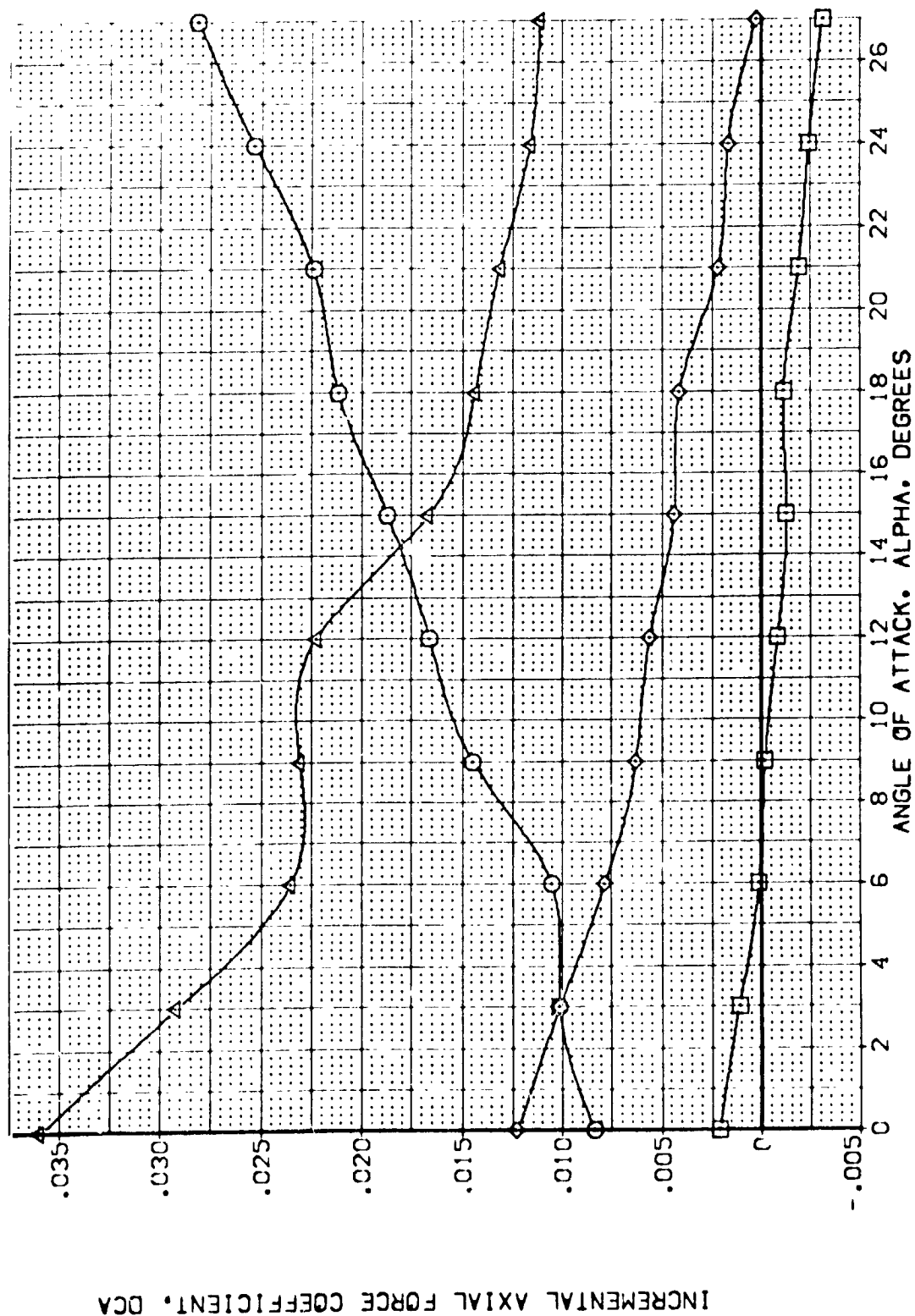


FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL: [VE-003] [VE-002] [VE-019] [VE-073]

CONFIGURATION DESCRIPTION: ARC 87-747 OASIC B C M F VI V V V V

DE: 15.000 -10.000 -20.000 -40.000

ALLRON: .000 .000 .000 .000

BOLAP: -11.700 -11.700 -11.700 -11.700

SPOBRK: 55.000 55.000 55.000 55.000

REFERENCE INFORMATION: SREF 2.4210 SC.F. REF 14.2440 XREF 28.1004 YREF 32.2000 ZREF 11.0000 SCALE 1.0000

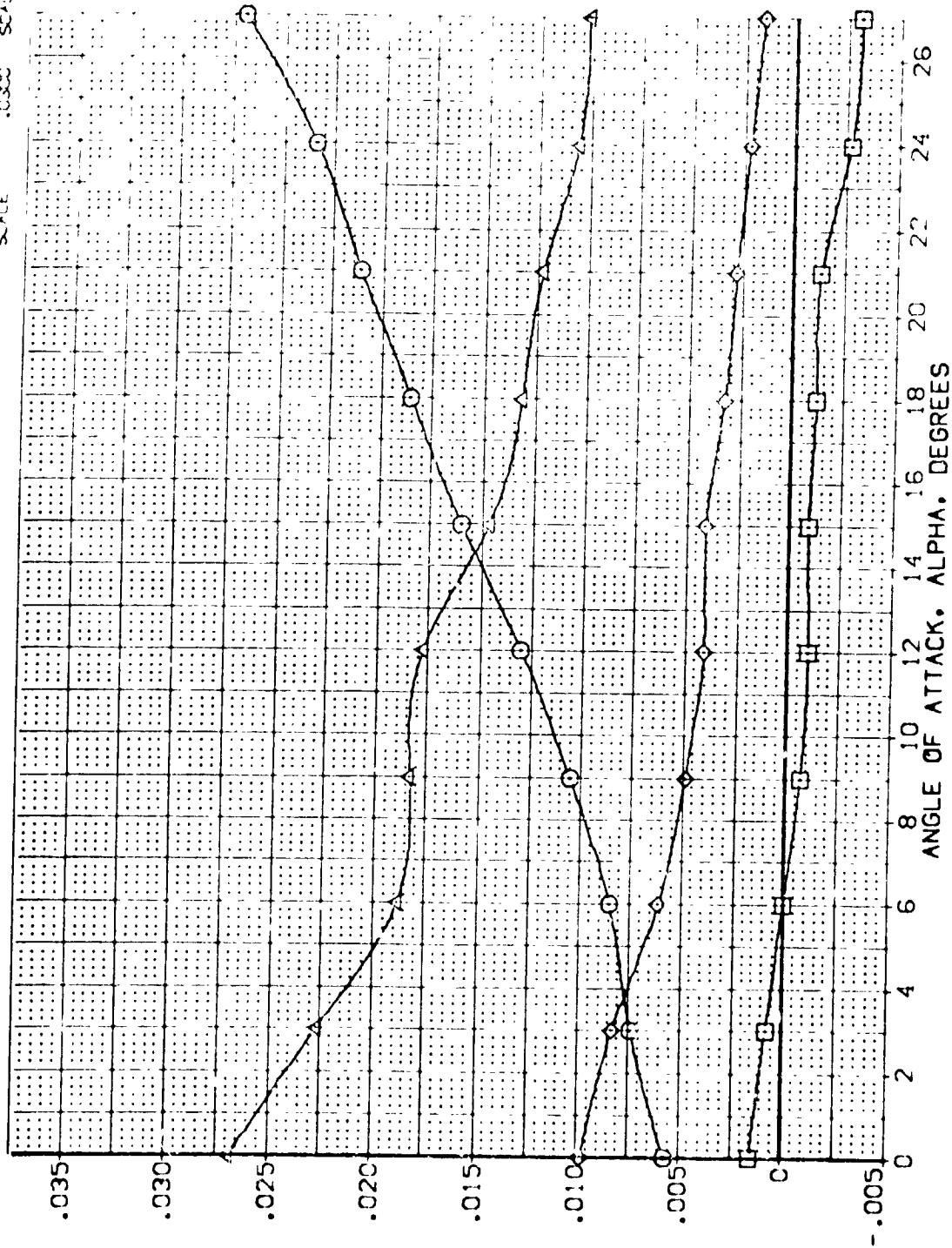
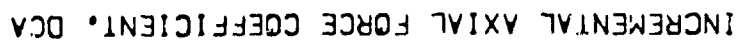


FIG. 7 ELEVEN EFFECTS

(B)MACH = 3.00

REFERENCE INFORMATION	
SREF	2.4210 SQ FT.
LREF	14.2440
BREF	28.1004
YREF	32.3010
YREF	0.0000
YREF	11.2600
SCALE	0.0000 SCALE



PAGE 139

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    DE    AILRON    BOFLAP    SPOBRK    REFERENCE INFORMATION

[VE 003]	ARC 87-747 D453C B C M F V1	15.000	.000	-11.700	55.000	SREF 2.42°C
[VE 002]	ARC 87-747 D453C B C M F V1	-10.000	.000	-11.700	55.000	LRPF 14.244°C
[VE 009]	ARC 87-747 D453C B C M F V1	-20.000	.000	-11.700	55.000	BRPF 28.100°C
[VE 073]	ARC 87-747 D453C B C M F V1	-40.000	.000	-11.700	55.000	XRPF 32.300°C

YREF 11.7000  
YBRP 11.7000  
SCALE 0.0000

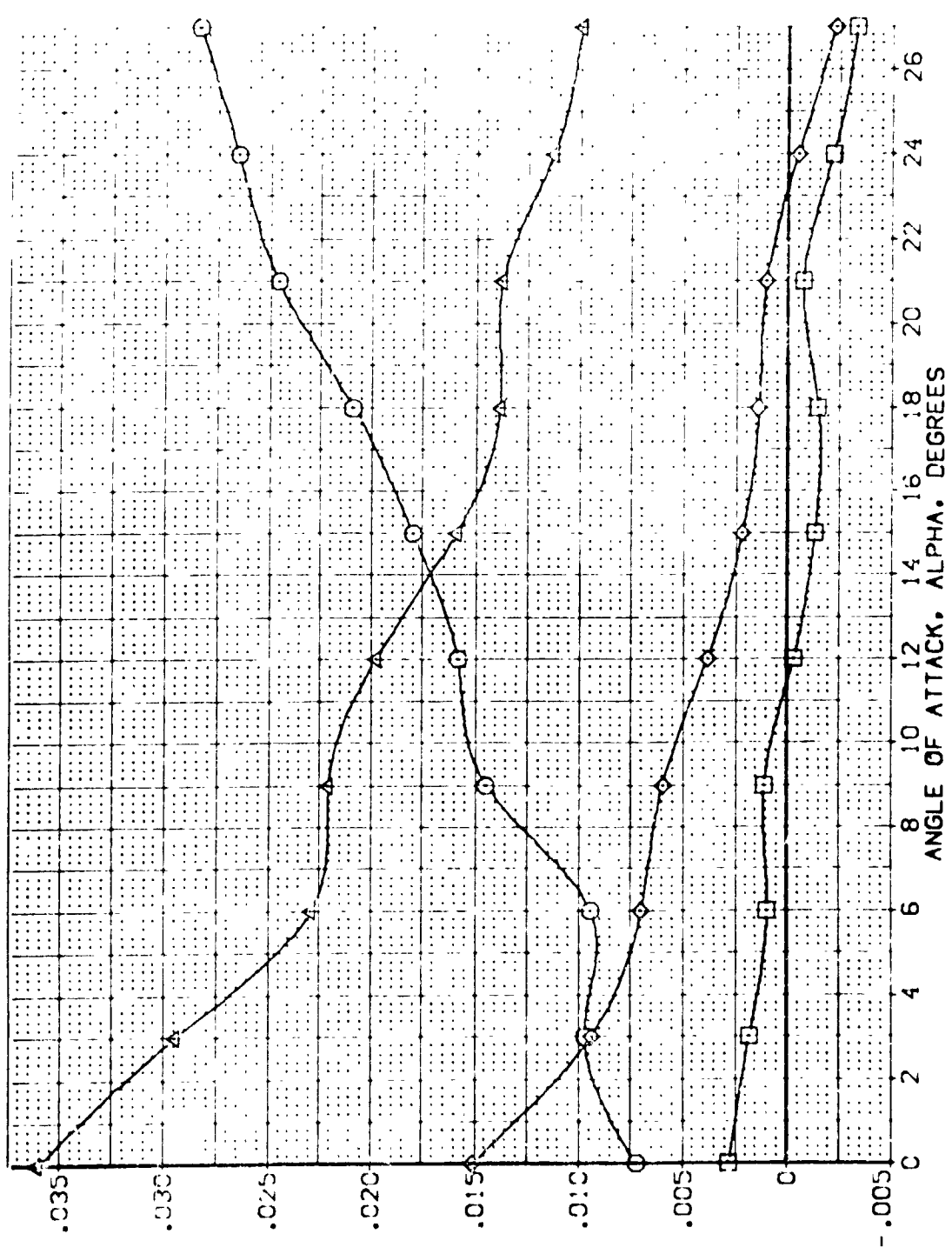


FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	DE	AILRON	BO/LAP	SPDRBK	REFERENCE INFORMATION
1-0031	○	ARC 87-747 D-53C B C M F V	15.000	.000	-11.700	55.000	SREF 2.421C SG.FY.
1-0032	○	ARC 87-747 D-53C B C M F V	-10.000	.000	-11.700	55.000	REF 14.244C
1-0033	○	ARC 87-747 D-53C B C M F V	-20.000	.000	-11.700	55.000	REF 28.1004
1-0034	○	ARC 87-747 D-53C B C M F V	-40.000	.000	-11.700	55.000	REF 37.3010
							YREF 11.0000
							ZREF 11.0000
							SCALE .0000

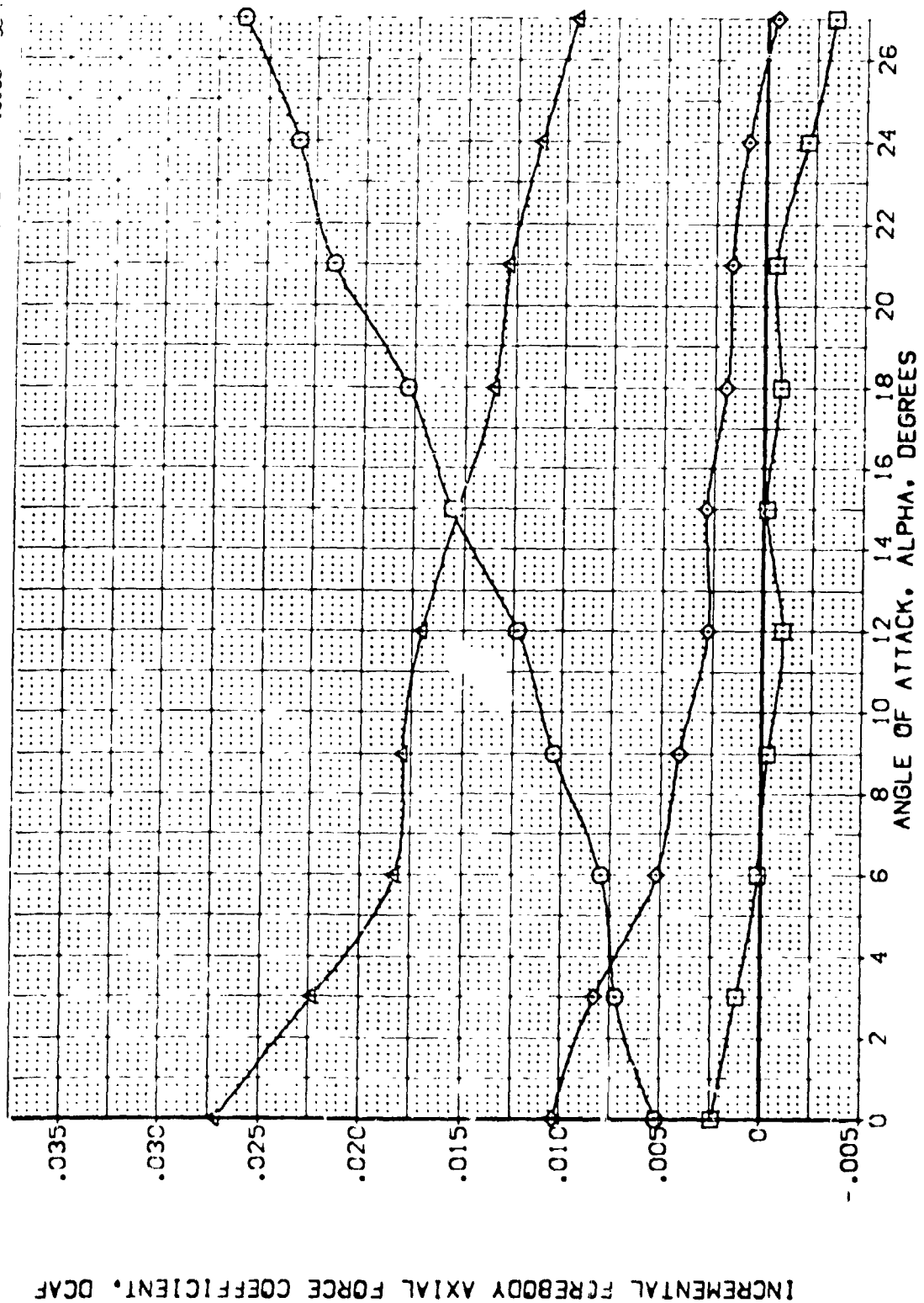


FIG. 7 ELEVON EFFECTS

(8) MACH = 3.00

DATA SET SYMBOL: [VELOC3] [VELOC2] [VELOC1] [VELOC0]

CONFIGURATION DESCRIPTION: ARC 87-747 CASIC B C M F VI V ARC 87-747 CASIC B C M F VI V ARC 87-747 CASIC B C M F VI V ARC 87-747 CASIC B C M F VI V

DE: 15.000 -10.000 -20.000 -40.000

AILRON: .000 .000 .000 .000

BOFLAP: -11.700 -11.700 -11.700 -11.700

SPT3AK: 55.000 55.000 55.000 55.000

REFERENCE INFORMATION: SREF: 2.4210 SQ.FT. LREF: 14.2440 XREF: 28.1004 YREF: 37.3510 ZREF: 50.000 SCALE: 11.2500 .0300

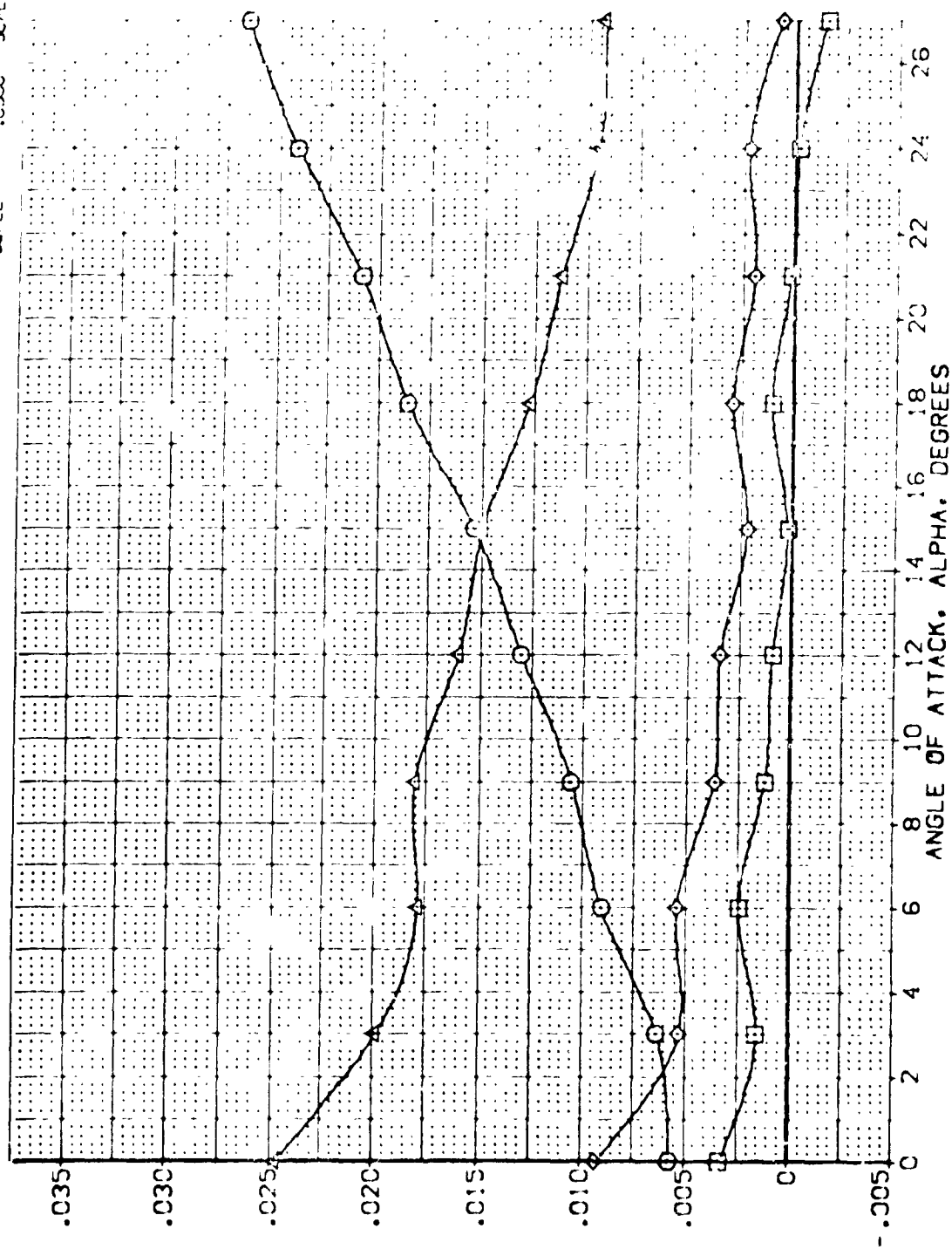


FIG. 7 ELEVON EFFECTS

(C)ACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	ALTRON	BOFLAP	SPDBRK	REFERENCE INFORMATION
0031	ABC BT-747 BASIC B C M F V1	15.000	.000	-11.700	55.000	SREF 2.4210 SC.F.
0032	ABC BT-747 BASIC B C M F V1	-10.000	.000	-11.700	55.000	LREF 14.2410
0033	ABC BT-747 BASIC B C M F V1	-20.000	.000	-11.700	55.000	BREF 78.1001
0034	ABC BT-747 BASIC B C M F V1	-40.000	.000	-11.700	55.000	YREF 32.8010
						YREF 11.7000
						SCALE 11.0000

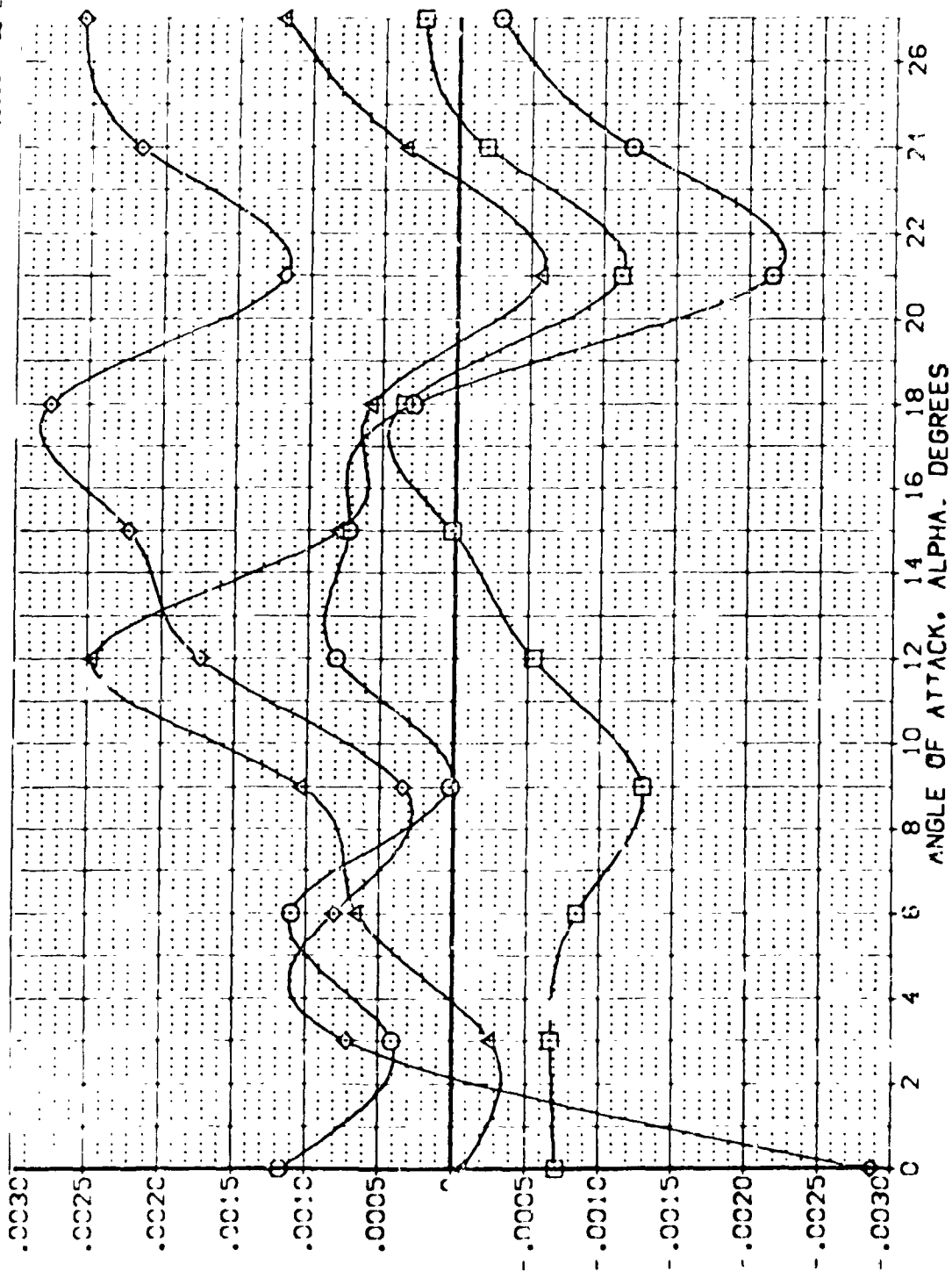


FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50



N7434334 UNCLAS

1.0

2.8

2.5

3.2

2.2

1.1

2.0

1.8

1.25

1.4

1.6

MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

DATA SET SYMBOL

CONFIGURATION	DESCRIPTION
ARC 87-747 0A53C	B C M F VI
ARC 87-747 0A53C	B C M F VI
ARC 87-747 0A53C	B C M F VI
ARC 87-747 0A53C	B C M F VI

2222  
 2222  
 >>>>

DE 15.000  
10.000  
20.000  
40.000

MIL RON	BDF LAP
.000	-11.700
.000	-11.700
.000	-11.700
.000	-11.700

WSPD5AK	REFER
\$55,000	SPEE
\$55,000	REF
\$55,000	BREF
\$55,000	REF

PRICE INFORMATION

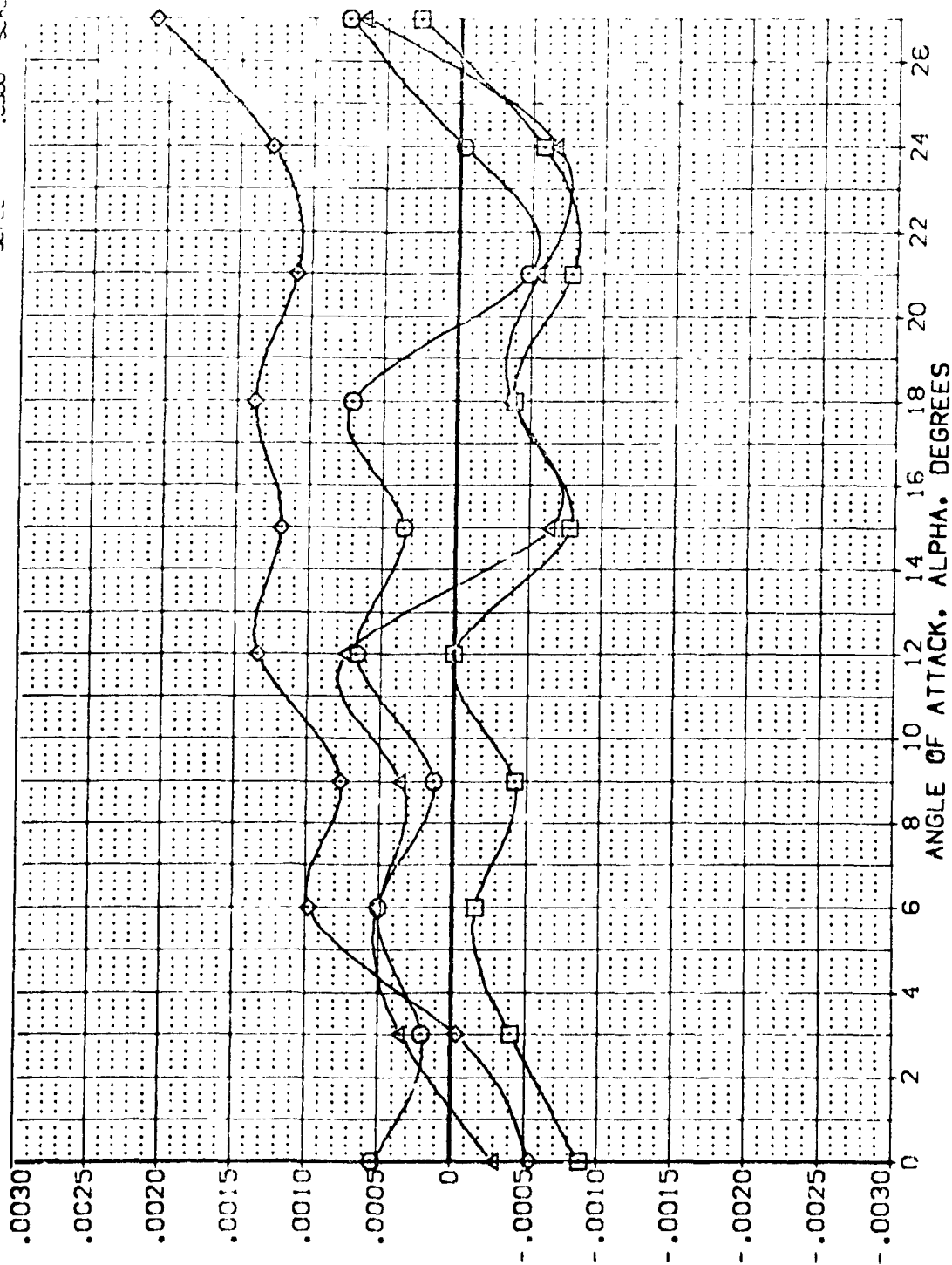


FIG. 7. ELEVON EFFECTS

$$(B)_{MACH} = 3.00$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	ATLRON	BOFLAP	SPCGRK	REFERENCE INFORMATION
(VELOC3)	ARC 87-747 CAS3C B C M F VI	15.000	.000	-11.700	55.000	SRCF 2.4210 SC.F.T.
(VELOC2)	ARC 87-747 CAS3C B C M F VI	-10.000	.000	-11.700	55.000	LRF 14.2440
(VELOC19)	ARC 87-747 CAS3C B C M F VI	-20.000	.000	-11.700	55.000	ESCF 20.1004
(VELOC23)	ARC 87-747 CAS3C B C M F VI	-40.000	.000	-11.700	55.000	VMAP 37.3010
						VMAP 11.2500
						SCALE .0000
						SCALE .0000

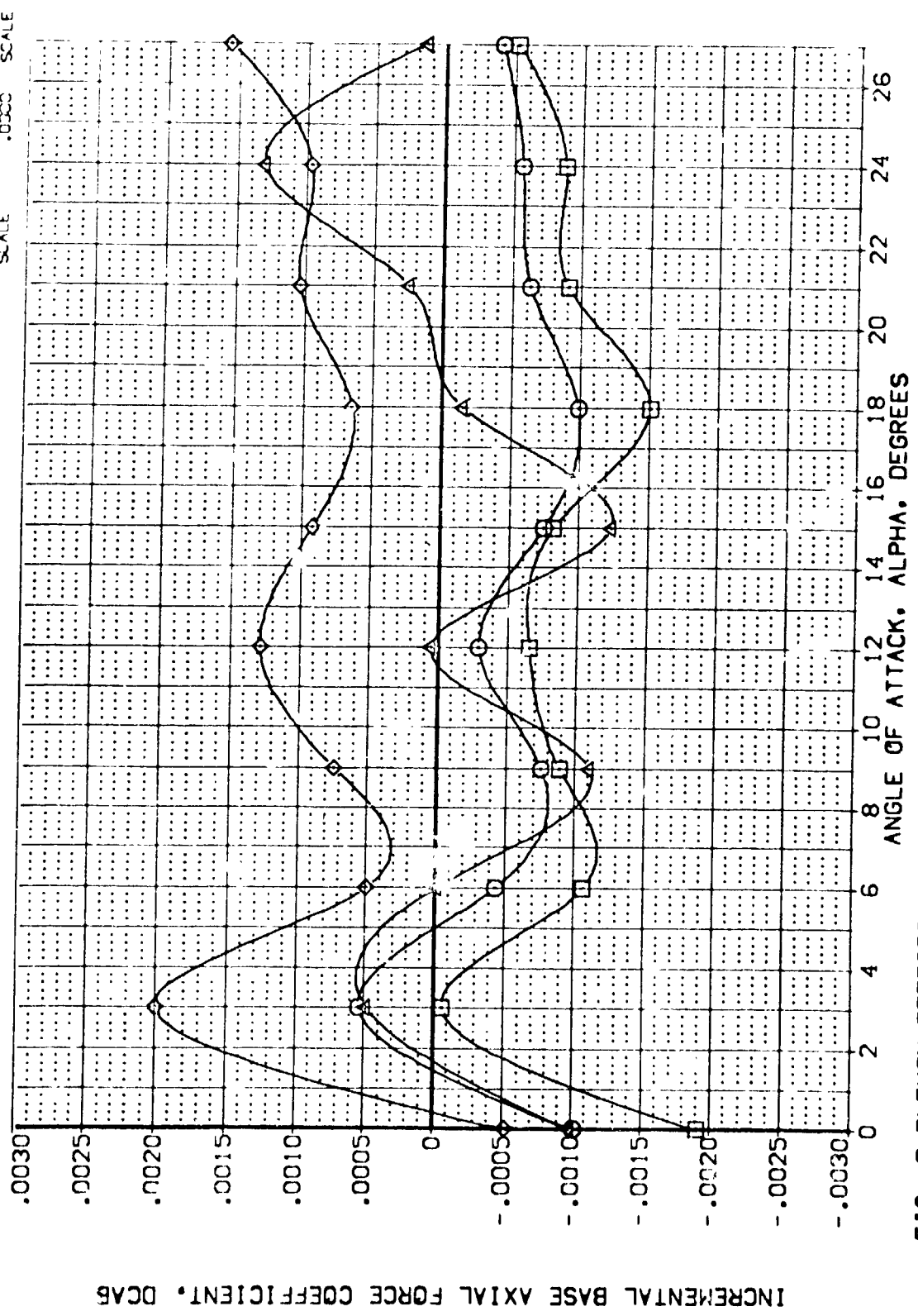


FIG. 7 ELEVON EFFECTS

(CMACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	ATLRN	BOF AP	SPOBRK	REFERENCE INFORMATION
(VEL003)	ARC 87-747 DA53C B C M F V I	15.000	.000	-11.700	55.000	SREF 2.4210 SQ. FT.
(VEL002)	ARC 87-747 DA53C B C M F V I	-10.000	.000	-11.700	55.000	LREF 14.2440 IN.
(VEL019)	ARC 87-747 DA53C B C M F V I	-20.000	.000	-11.700	55.000	BREF 28.1004 IN.
(VEL023)	ARC 87-747 DA53C B C M F V I	-40.000	.700	-11.700	55.000	YMPP 32.3010 IN.
						ZMPP 11.3000 IN.
						SCALE .0300 IN.

INCREMENTAL NORMAL FORCE COEFFICIENT, DCN

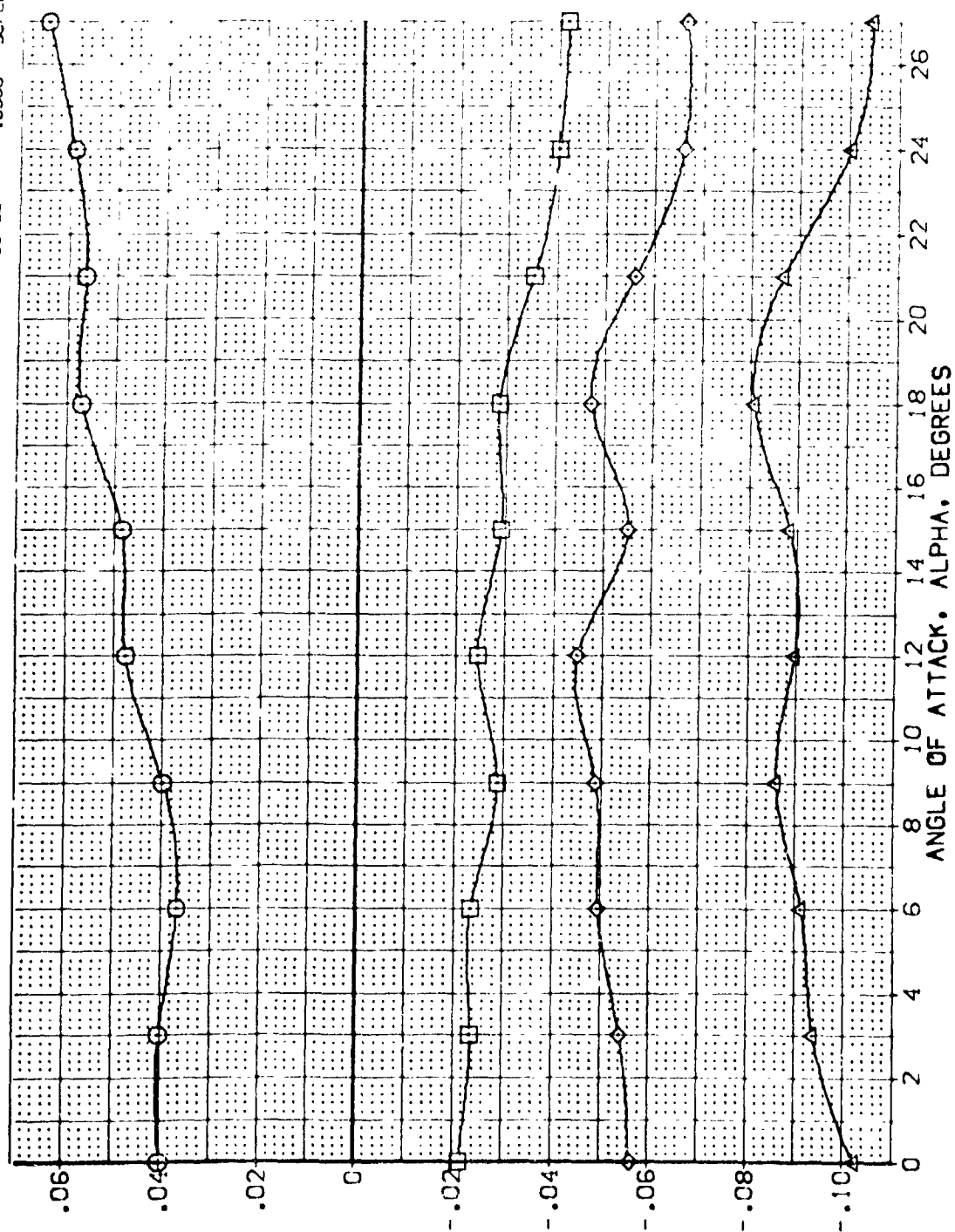


FIG. 7 ELEVON EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AIRLON	BDF LAP	SPUBRK	REFERENCE INFORMATION
(VE-003)	ARC 87-747 DA53C B C M F V1	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(VE-002)	ARC 87-747 DA53C B C M F V1	-10.000	.000	-11.700	55.000	LREF 14.2440
(VE-019)	ARC 87-747 DA53C B C M F V1	-20.000	.000	-11.700	55.000	BREF 28.1004
(VE-023)	ARC 87-747 DA53C B C M F V1	-40.000	.000	-11.700	55.000	XMRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0000

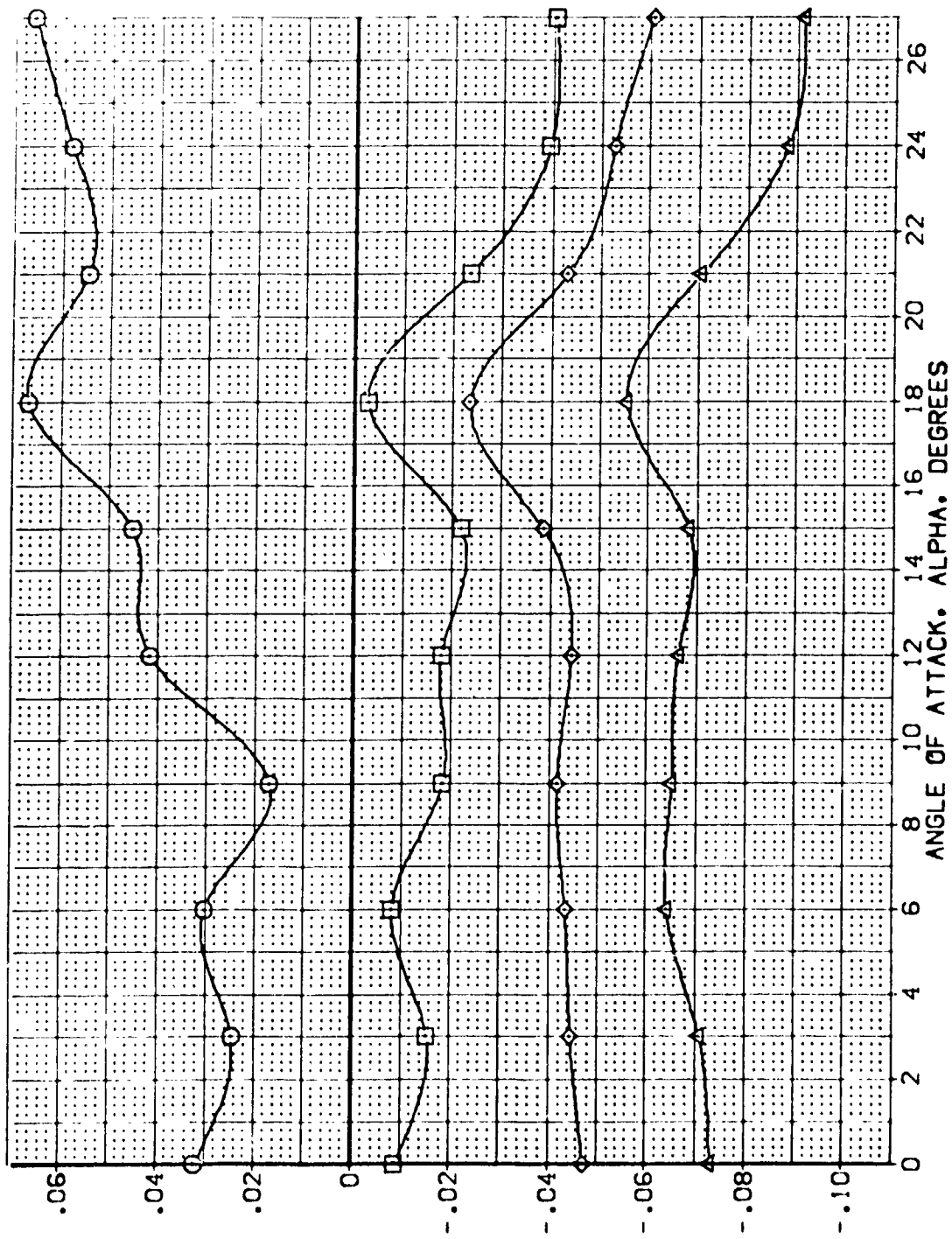


FIG. 7 ELEVON EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[VELOC2]	ARC 87-747 DA53C B C M F VI	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[VELOC2]	ARC 87-747 DA53C B C M F VI	-10.000	.000	-11.700	55.000	LREF 14.2440
[VELOC2]	ARC 87-747 DA53C B C M F VI	-20.000	.000	-11.700	55.000	BREF 28.1004
[VELOC2]	ARC 87-747 DA53C B C M F VI	-40.000	.000	-11.700	55.000	XREF 32.3010
						YREF .0000
						ZREF 11.2500
						SCALE .0300

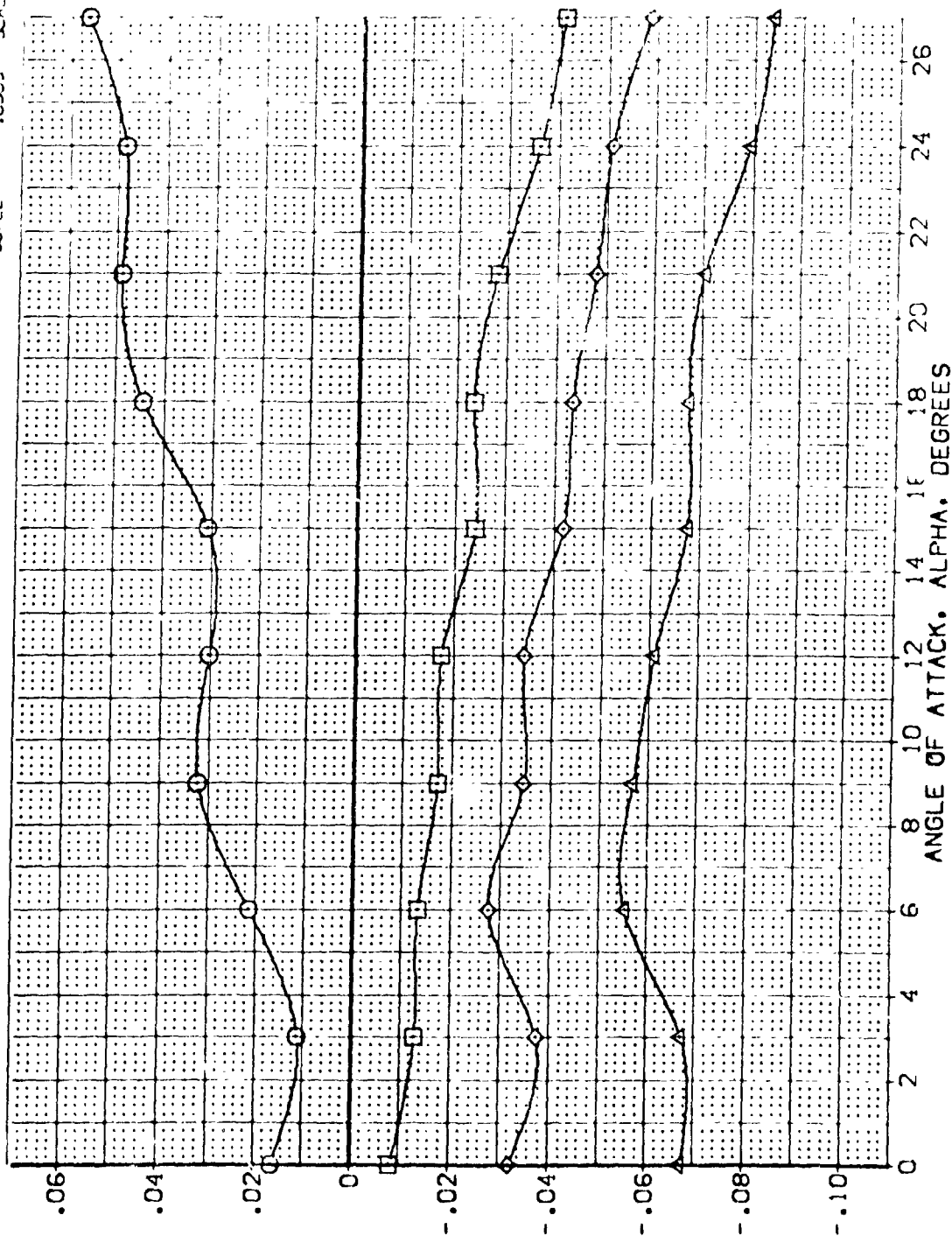


FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	ATLRON	BDFLAP	SPDRBK	REFERENCE INFORMATION
[VEL003]	ARC 87-747 OAS3C B C M F V1	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[VEL002]	ARC 87-747 OAS3C B C M F V1	-10.000	.000	-11.700	55.000	LREF 14.2440
[VEL019]	ARC 87-747 OAS3C B C M F V1	-20.000	.000	-11.700	55.000	BRFF 28.0001
[VEL023]	ARC 87-747 OAS3C B C M F V1	-40.000	.000	-11.700	55.000	XMRD 32.3010
						ZMRD .0000
						SCALE 11.2500
						SCALE .0300

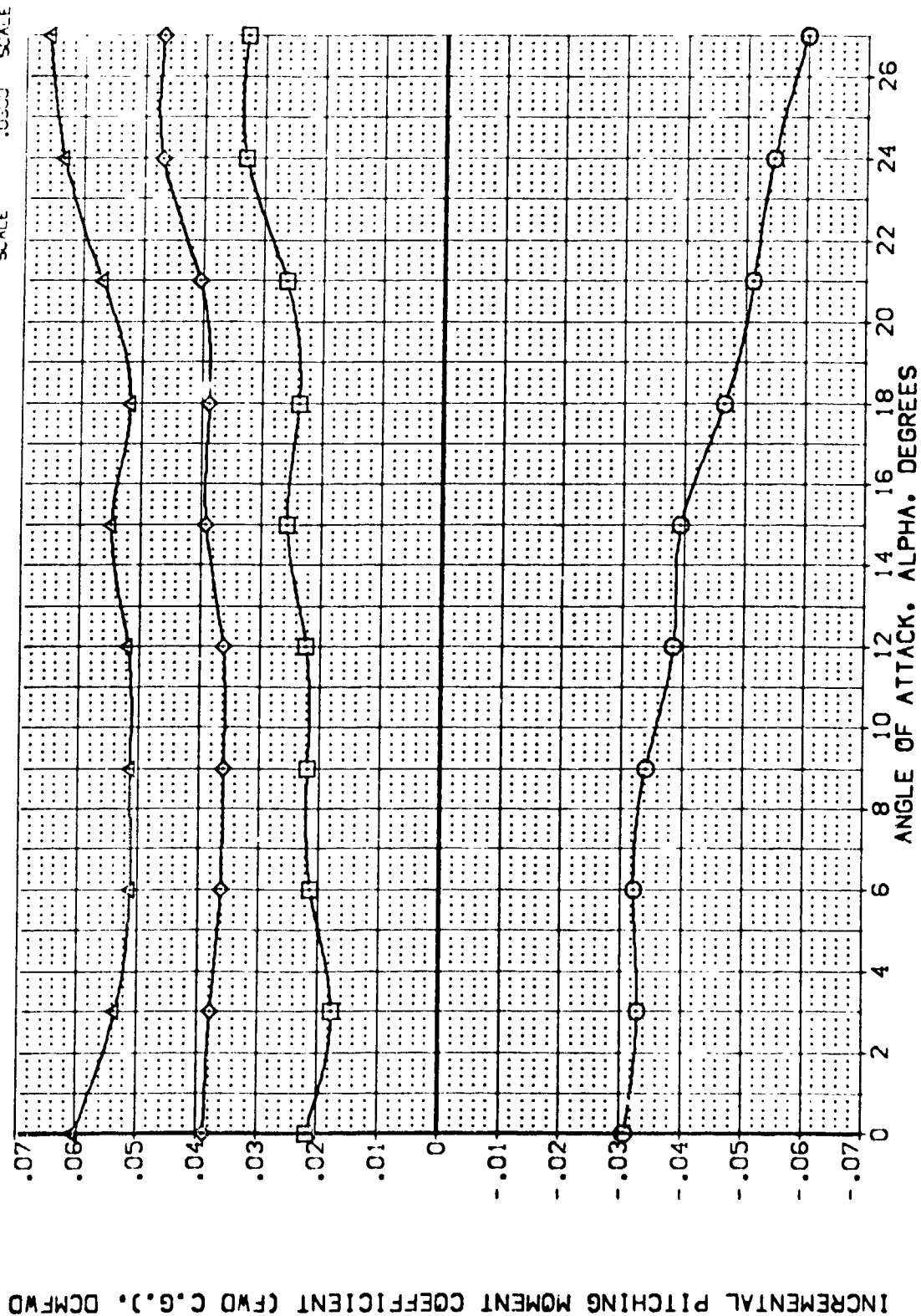


FIG. 7 ELEVON EFFECTS

(MACH = 2.50)

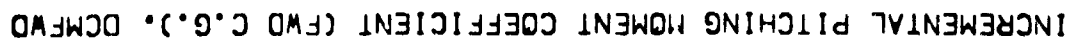
DATA SET SYMBOL

CONFIGURATION	DESCRIPTION
ARC 87-747	0A53C B C M F VI
ARC 87-747	0A53C B C M F VI
ARC 87-747	0A53C B C M F VI
ARC 87-747	0A53C B C M F VI

DE	15.000	10.000	5.000	0	5.000	10.000	15.000
201	201	201	201	201	201	201	201
202	202	202	202	202	202	202	202
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249	249	249	249	249	249	249	249
250	250	250	250	250	250	250	250
251	251	251	251				

AIRFLOW	BOFLAP	SPDRK
.000	-11.700	55.000
.000	-11.700	55.000
.000	-11.700	55.000

REFERENCE INFORMATION		SC.FT.
SREF	2.4210	2.4210
LREF	14.2440	14.2440
BREF	28.1004	28.1004
XMRD	32.3010	32.3010
YMRD	0.0000	0.0000
ZMRD	11.2500	11.2500
SCALE	0.000	0.000



{B}MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	ATLON	BOFLAP	SPDBRK	REFERENCE INFORMATION
{1-003}	ARC 87-747 DASSC B C M F VI	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
{1-002}	ARC 87-747 DASSC B C M F VI	-10.000	.000	-11.700	55.000	LREF 14.2445
{1-019}	ARC 87-747 DASSC B C M F VI	-20.000	.000	-11.700	55.000	BREF 28.1003
{1-023}	ARC 87-747 DASSC B C M F VI	-40.000	.000	-11.700	55.000	XMRP 32.3030
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

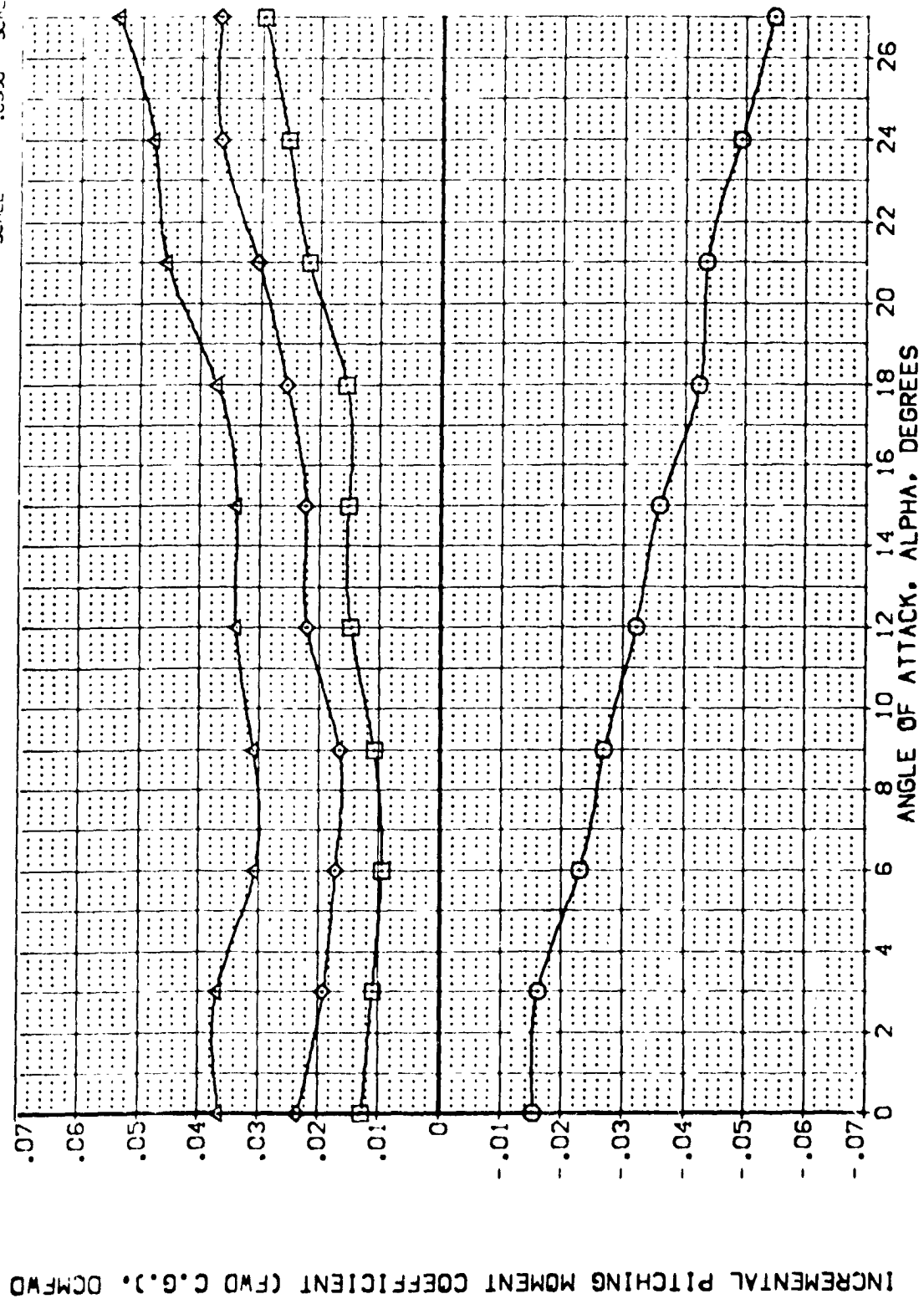
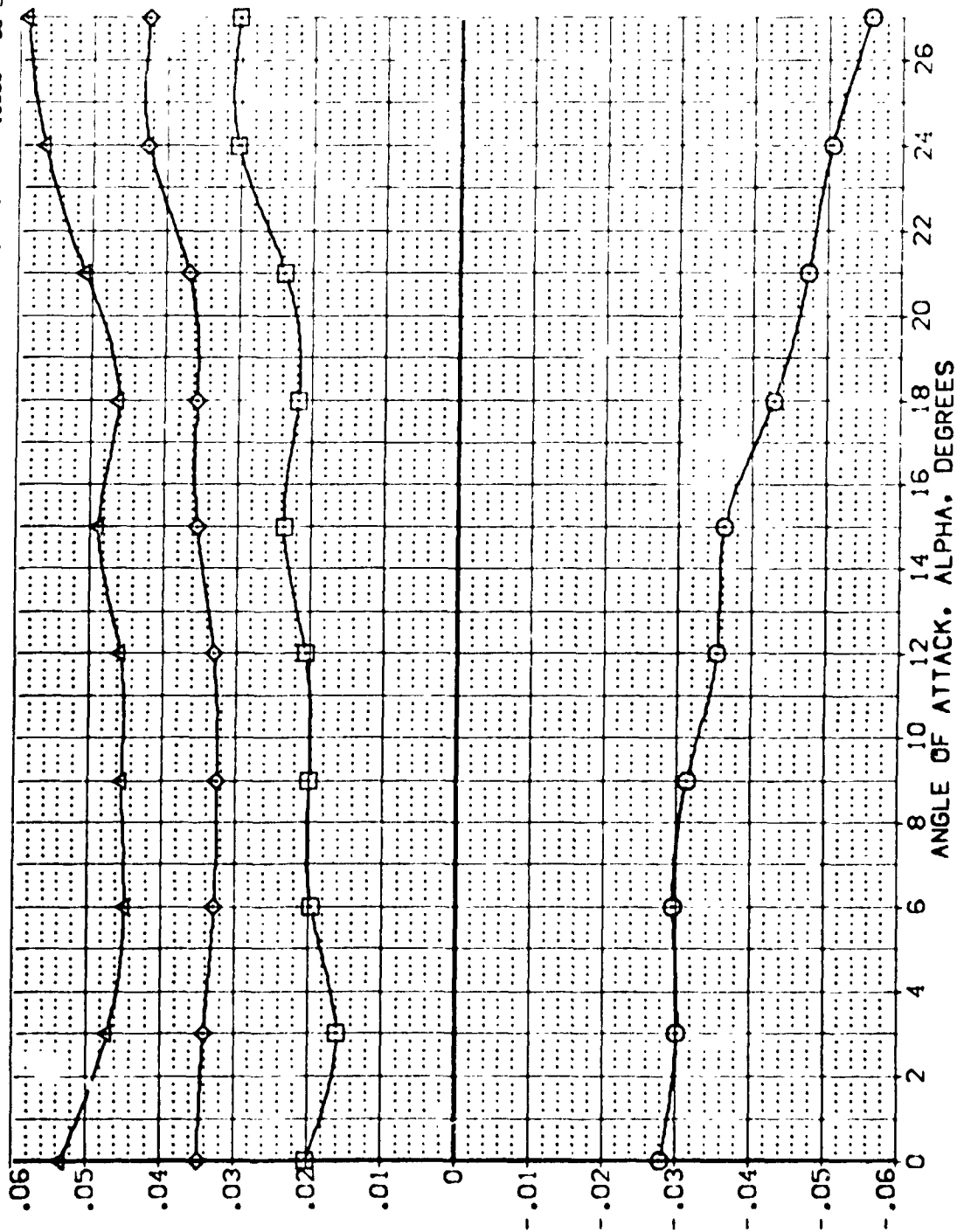


FIG. 7 ELEVON EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AIRLON	BDF LAP	SPDRBK	REFERENCE INFORMATION
ARC 87-747	DA53C B C M F V I V	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
ARC 87-747	DA53C B C M F V I V	-10.000	.000	-11.700	55.000	LREF 14.2440
ARC 87-747	DA53C B C M F V I V	-20.000	.000	-11.700	55.000	BREF 28.1004
ARC 87-747	DA53C B C M F V I V	-40.000	.000	-11.700	55.000	XREF 32.3013
						YREF 0.000
						ZREF 11.2500
						SCALE 0.000
						SCALE 0.000



INCREMENTAL PITCHING MOMENT COEFFICIENT (Cm) • DCMAFT

FIG. 7 ELEVON EFFECTS

(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DE	AILRON	BOELAP	SPDBRK	REFERENCE INFORMATION
[A-DC3]	ARC 87-747 BASSC B C M F VI V	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[A-DC2]	ARC 87-747 BASSC B C M F VI V	-10.000	.000	-11.700	55.000	LREF 14.2440 N.
[A-DC1]	ARC 87-747 BASSC B C M F VI V	-20.000	.000	-11.700	55.000	BREF 78.1074 N.
[A-DC0]	ARC 87-747 BASSC B C M F VI V	-40.000	.000	-11.700	55.000	YREF 35.3010 N.
						ZREF .0000 N.
						WREF 11.2500 N.
						SCALE .0300

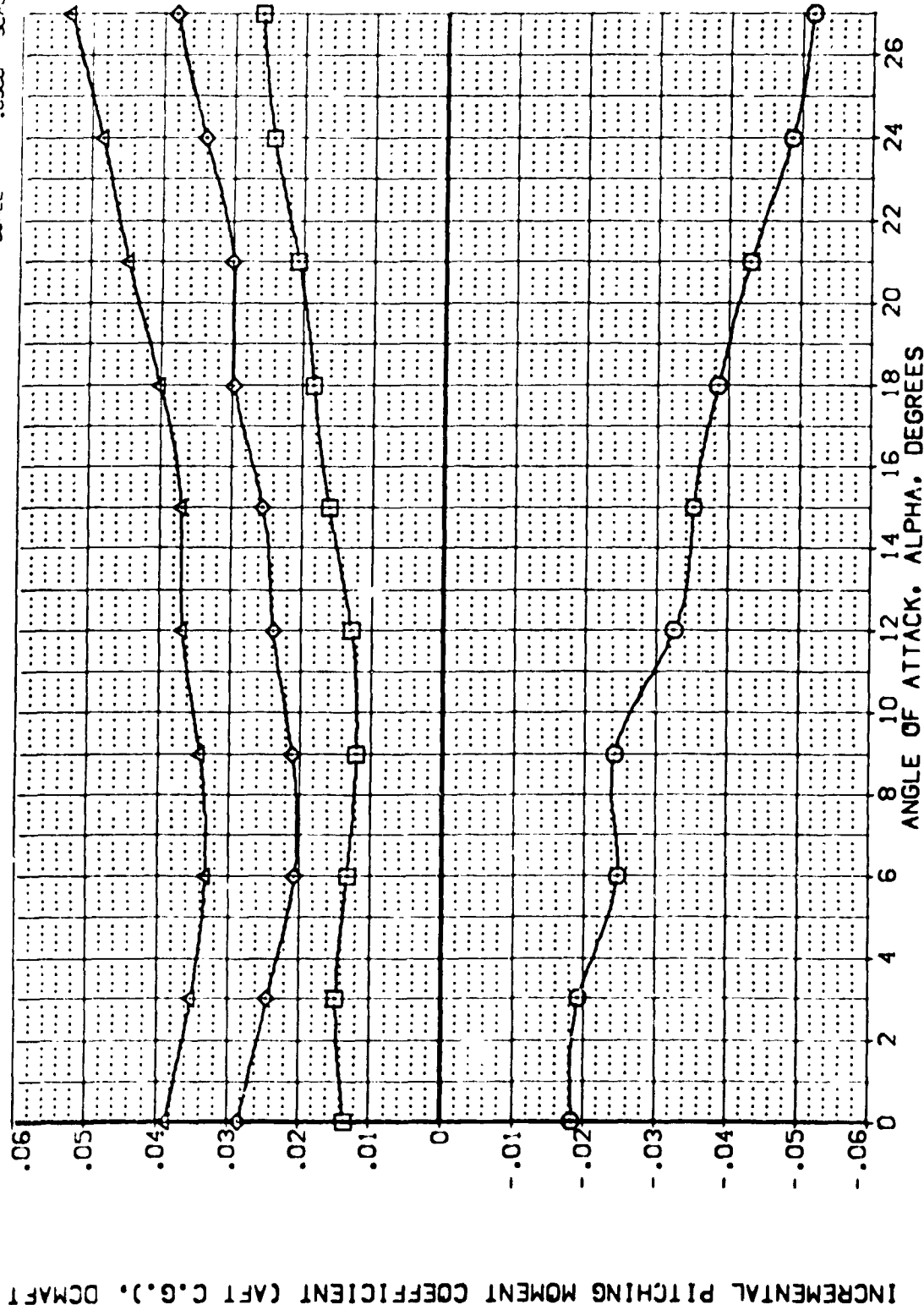


FIG. 7 ELEVON EFFECTS

(B)MACH = 3.00

DATA SET SYMBOLS: (VELOC03) (VELOC02) (VELOC19) (VELOC73)

CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C H F VI V ARC 87-747 BASIC B C H F VI V ARC 87-747 BASIC B C H F VI V ARC 87-747 BASIC B C H F VI V

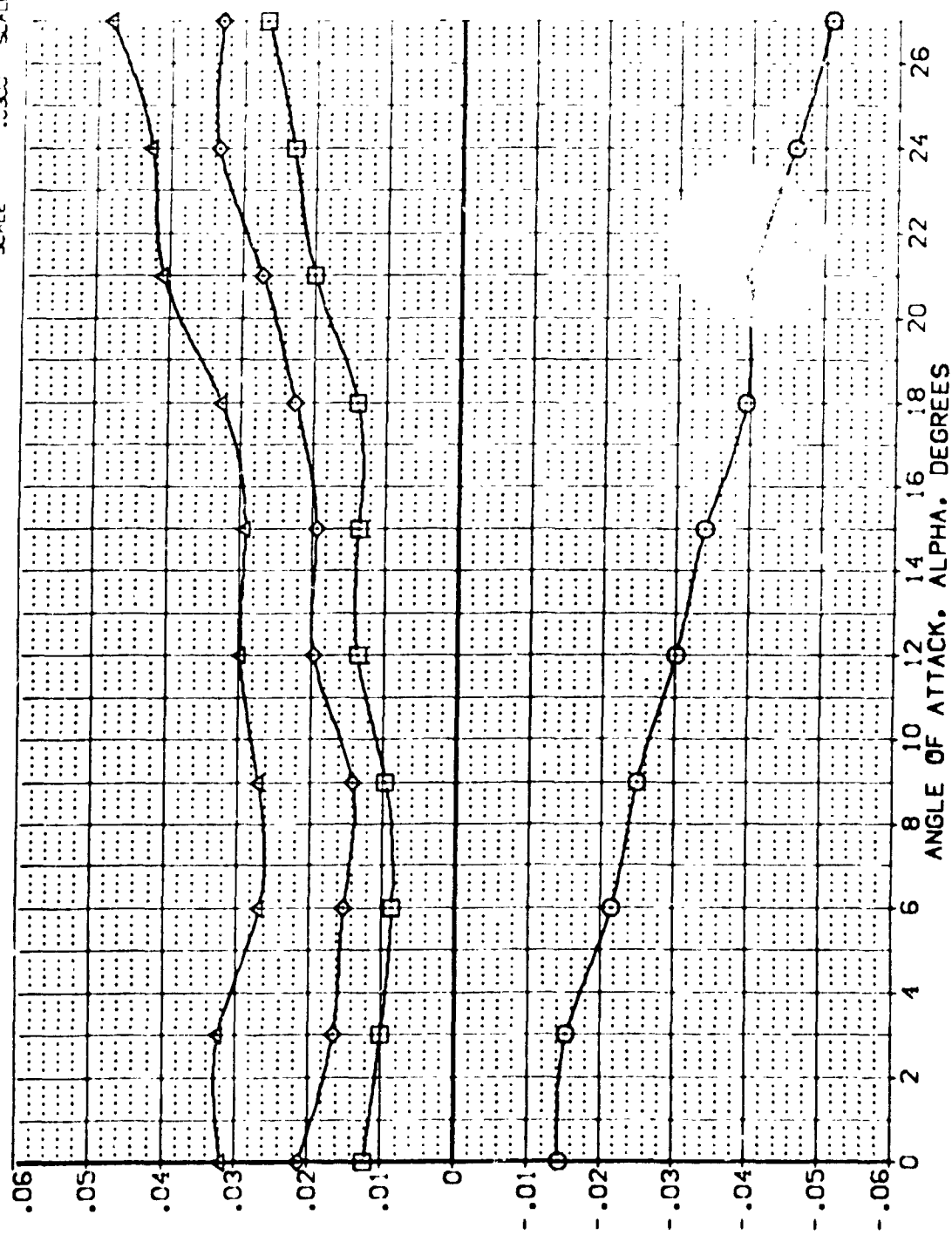
DE: 15.000 -10.000 -20.000 -40.000

AIRLON: .000 .000 .000 .000

BOFLAP: -11.700 -11.700 -11.700 -11.700

SPOBRK: 55.000 55.000 55.000 55.000

REFERENCE INFORMATION: SREF 2.4210 52.57 LREF 14.2440 77.77 BREF 38.1004 77.77 XREF 32.5010 77.77 YREF 11.2500 77.77 ZREF 11.2500 77.77 SCALE 1.0000 77.77



INCREMENTAL PITCHING MOMENT COEFFICIENT (AFT C.G.), DCMAFT

FIG. 7 ELEVON EFFECTS

(C)<sub>MACH</sub> = 3.50

ARC 87-747 CA53C B C M F W1 V NOM. RN/L (TEL016)

SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	ELEVON	BOFLAP	ELEVON	SREF	REF	SCALE	SCALE
○	2.499	.000	.000	.000	.000	14.2449	14.2449	14.2449	14.2449
□	3.001	.000	.000	.000	.000	28.1004	28.1004	28.1004	28.1004
◇	3.498	.000	.000	.000	.000	32.3018	32.3018	32.3018	32.3018
						11.7500	11.7500	11.7500	11.7500
						10.300	10.300	10.300	10.300

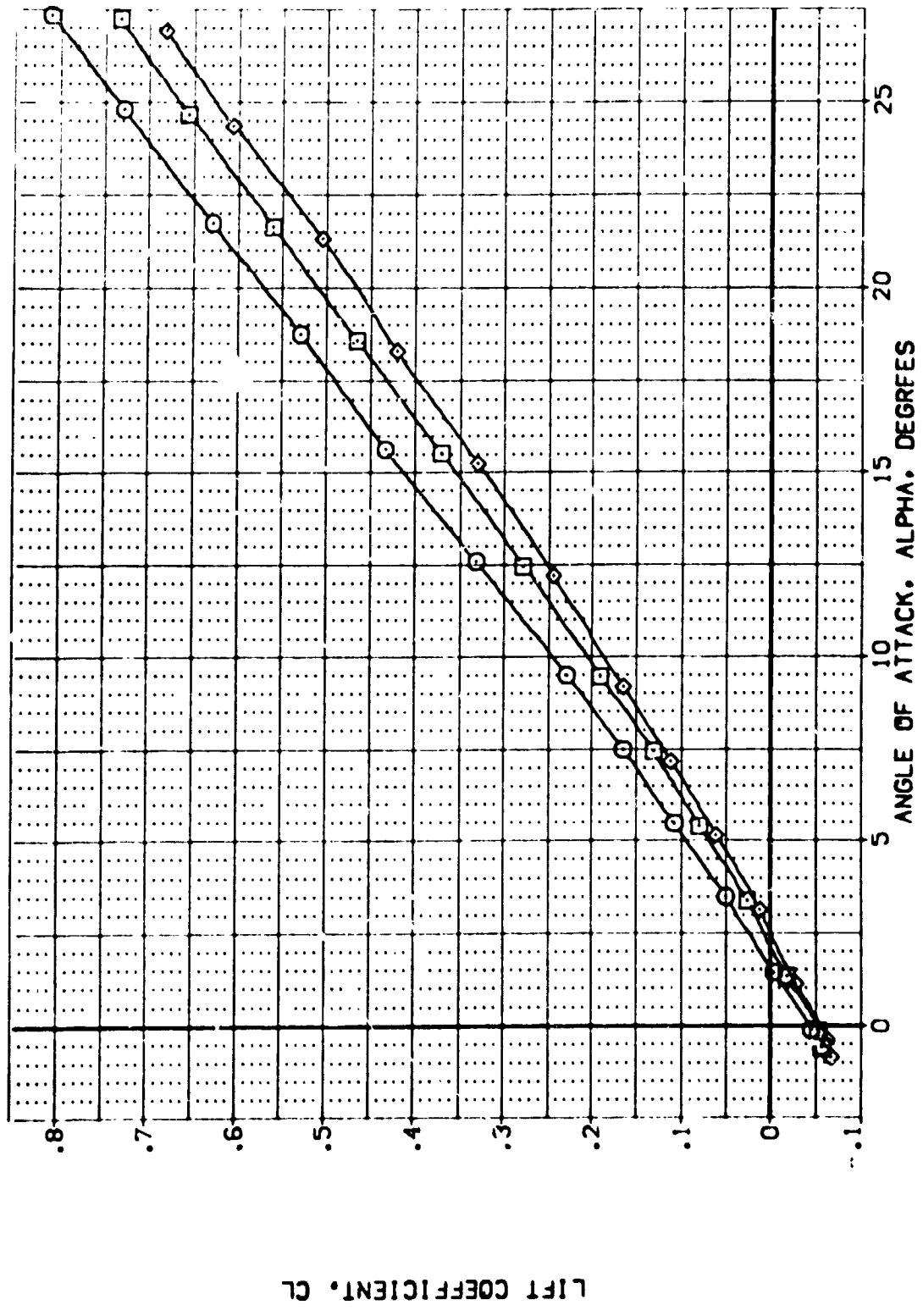


FIG. 7 ELEVON EFFECTS

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TELC16)

SYMBOL  
 ○ □ ◇

PARAMETRIC VALUES  
 BETA .000 ELEVON .000  
 AILRON .000 EDFLAP .000  
 SPOBRK 55.000 RUDDER .000  
 ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.7440  
 BREF 28.1004  
 XREF 32.3010  
 YREF 11.0000  
 ZREF 11.7200  
 SCALE .0300

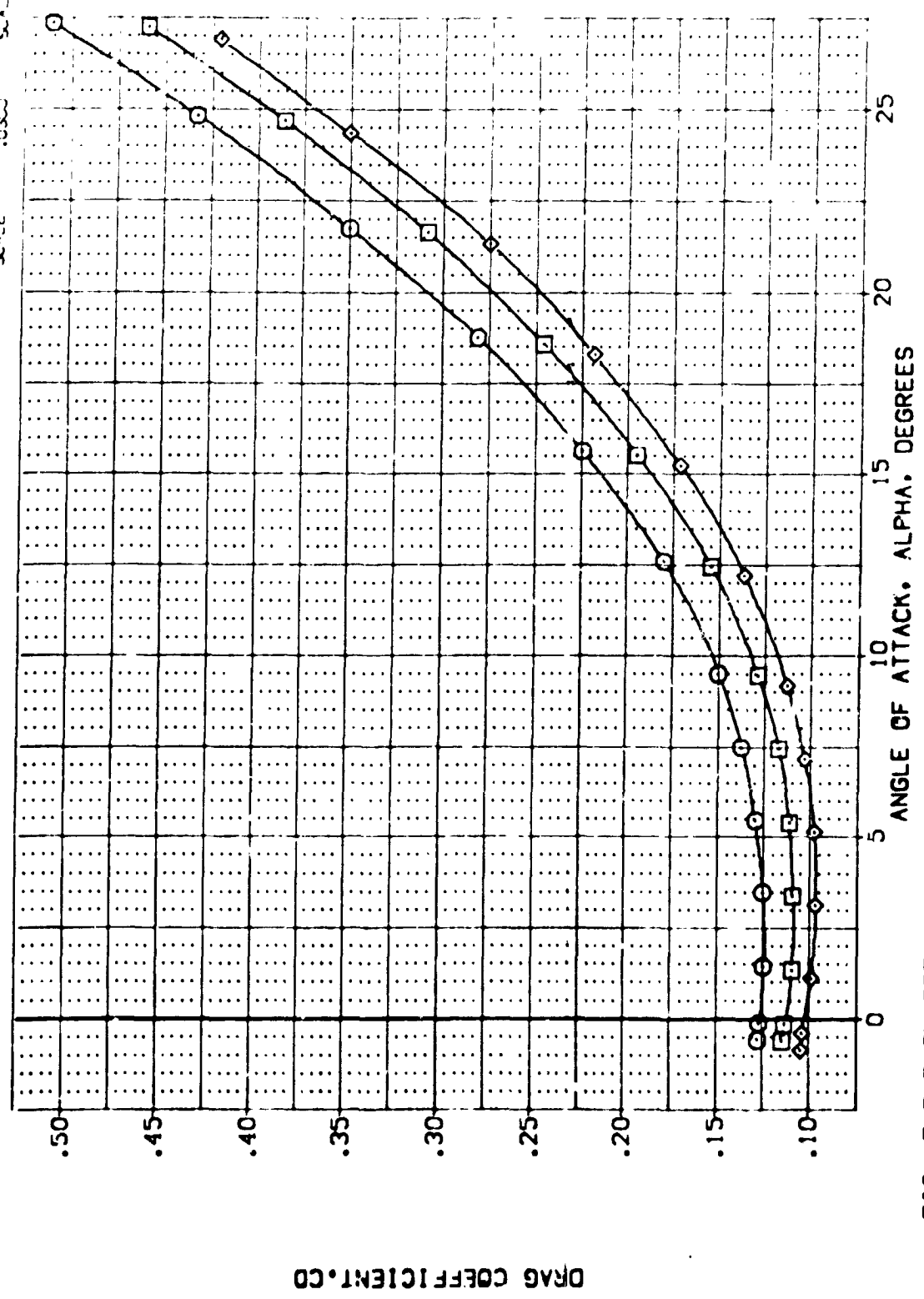


FIG. 7 ELEVON EFFECTS

ARC 87-747 CA53C B C M F W1 V NOM. RN/L (TELO16)

SYMBOL	MACH	BETA	AILRON	SPOBRK	ELEV-L	PARAMETRIC VALUES	ELEVON	BOFLAP	RJODER	ELEV-R
○	2.499					.000	.000	.000	.000	.000
□	3.001					.000	.000	.000	.000	.000
◇	3.498					.000	.000	.000	.000	.000

REFERENCE INFORMATION	
SREF	2.4210
LREF	14.2440
BREF	28.1004
XREF	32.3013
YREF	.0000
ZREF	11.7500
SCALE	.0300

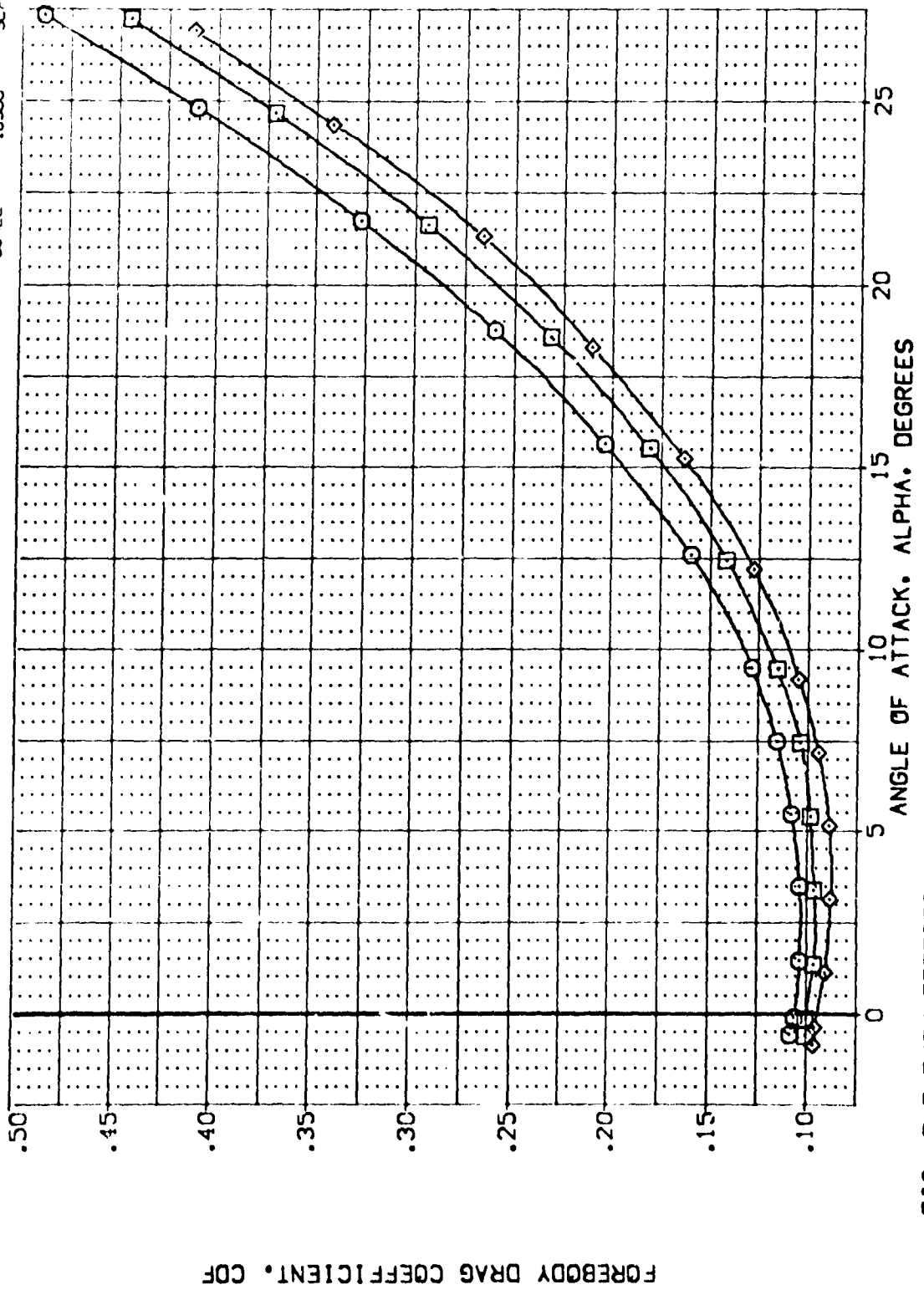




FIG. 7 ELEVON EFFECTS

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TEL016)

SYMBOL  
  


MACH	BETA	PARAMETRIC VALUES	
2.499	.000	ELEVON	.000
3.001	.000	BD FLAP	.000
3.498	.000	RUDDER	.000
	.000	ELEV-L	.000
	.000	ELEV-R	.000

REFERENCE INFORMATION	
SREF	2.4210
LREF	14.2440
BREF	28.1004
XMRP	37.3010
YMRP	.0000
ZMRP	.0000
SCALE	.0000

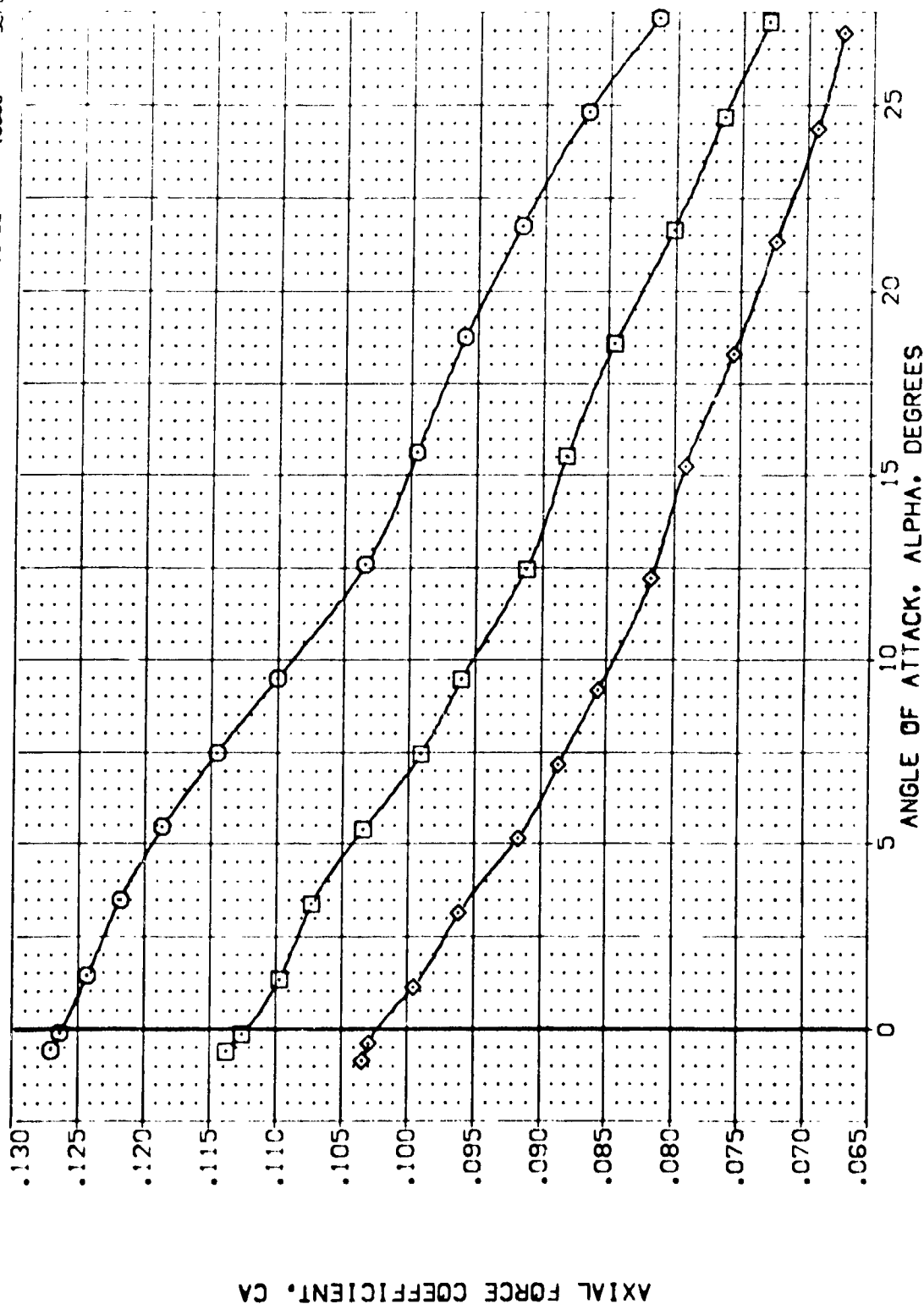


FIG. 7 ELEVON EFFECTS



ARC 87-747 OAS3C B C M F W1 V NOM. RN/L (TELO:6)

WACH	2.499	BETA	.000	ELEVON	.000
3.001	AILERON	.000	BOFLAP	.000	
3.498	SPOILER	55.000	RUDDER	.000	
	ELEV-L	.000	ELEV-R	.000	

REFERENCE INFORMATION

SREF	2.4210	SS.F.
LREF	14.7440	
EXPE	78.1004	
YREF	37.3010	
ZREF	.0000	
SCALE	11.7500	SCALE
	.0300	

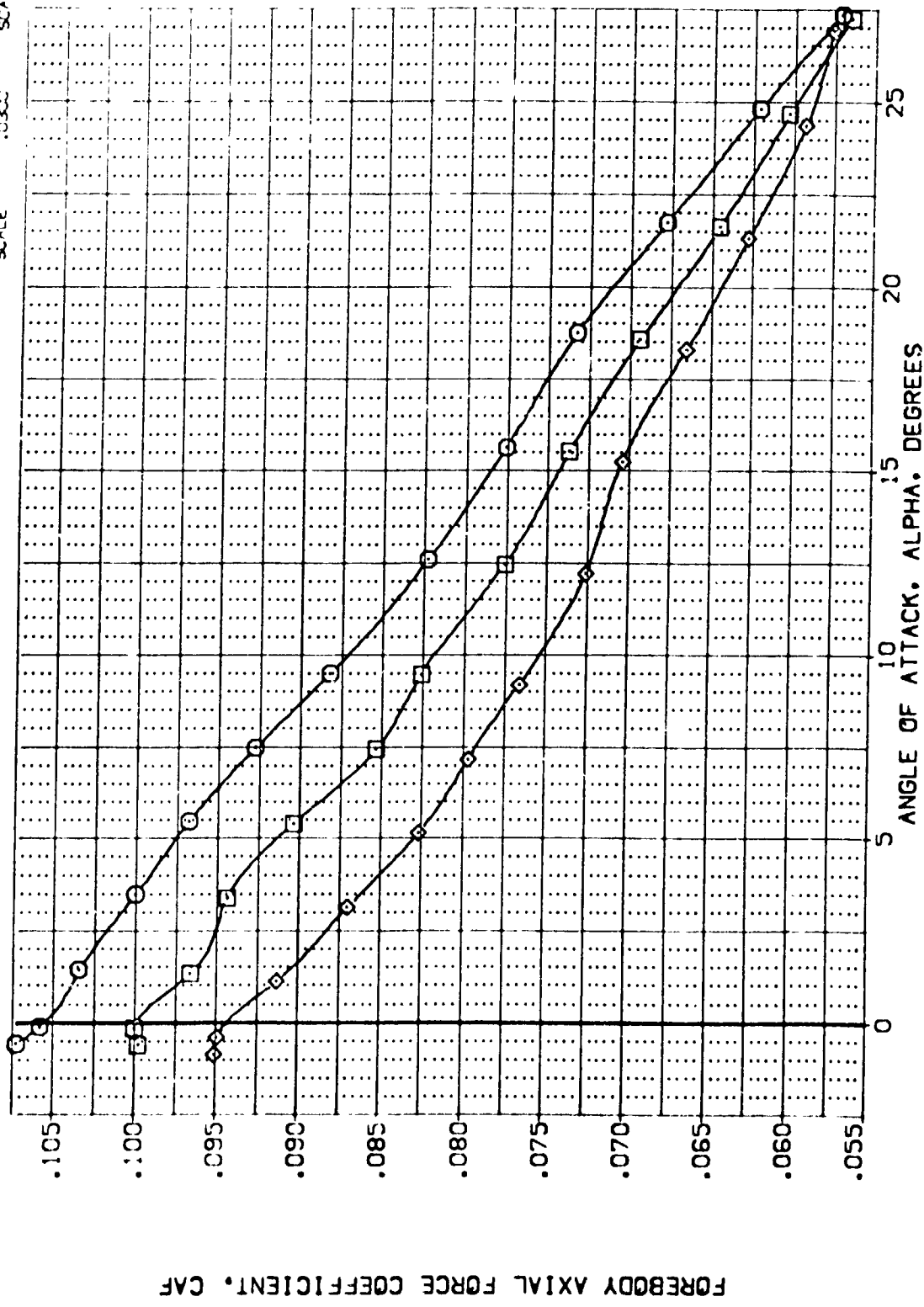


FIG. 7 ELEVON EFFECTS

ARC 87-747 0A53C B C M F W1 V NCM. RN/L (TEL016)

SYMBOL  
 2.459  
 3.001  
 3.498

PARAMETRIC VALUES  
 BETA .000 ELEVON .000  
 AILRON .000 BOFLAP .000  
 SPOBRK 55.000 RUDDER .000  
 ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
 SREF 2.4210 SC.F.T.  
 LREF 14.2440  
 BREF 28.1004  
 XPROP 32.3010  
 YPROP 0.0000  
 ZPROP 11.2000  
 SCALE 0.300

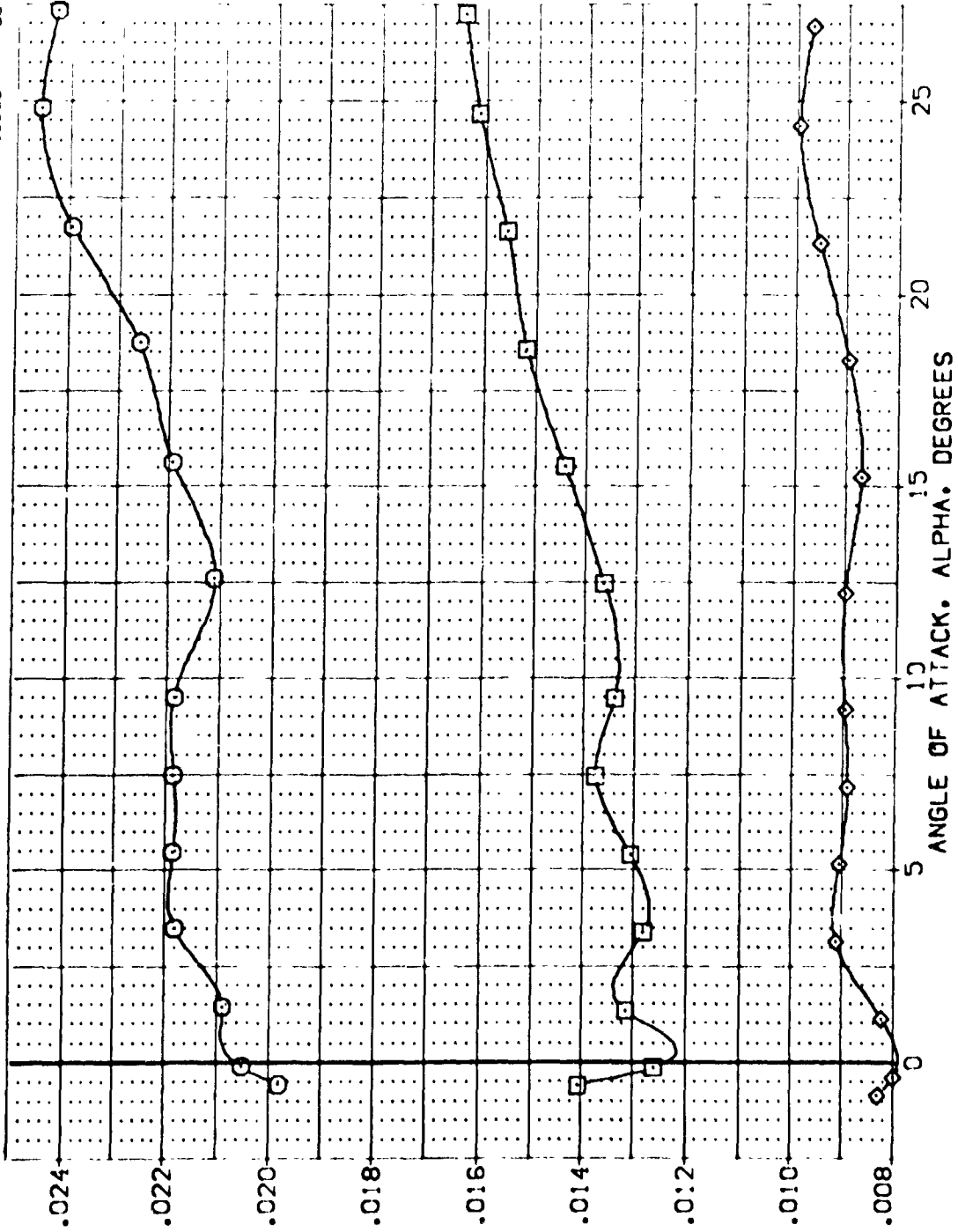


FIG. 7 ELEVON EFFECTS

APC 87-747 GA53C B C M F W1 V NOM. RN/L (TELO16)

SYMBOL		PARAMETRIC VALUES		REFERENCE INFORMATION	
MACH	BETA	.000	ELEVON	SREF	2.4210
2.499	AILRON	.000	BOFLAP	LREF	14.2440
3.001	SPOBRK	55.000	RUDER	BREF	20.1000
3.498	ELEV-L	.000	ELEV-R	XMRP	32.3010
				YMRP	.0000
				ZMRP	11.2500
				SCALE	.0300

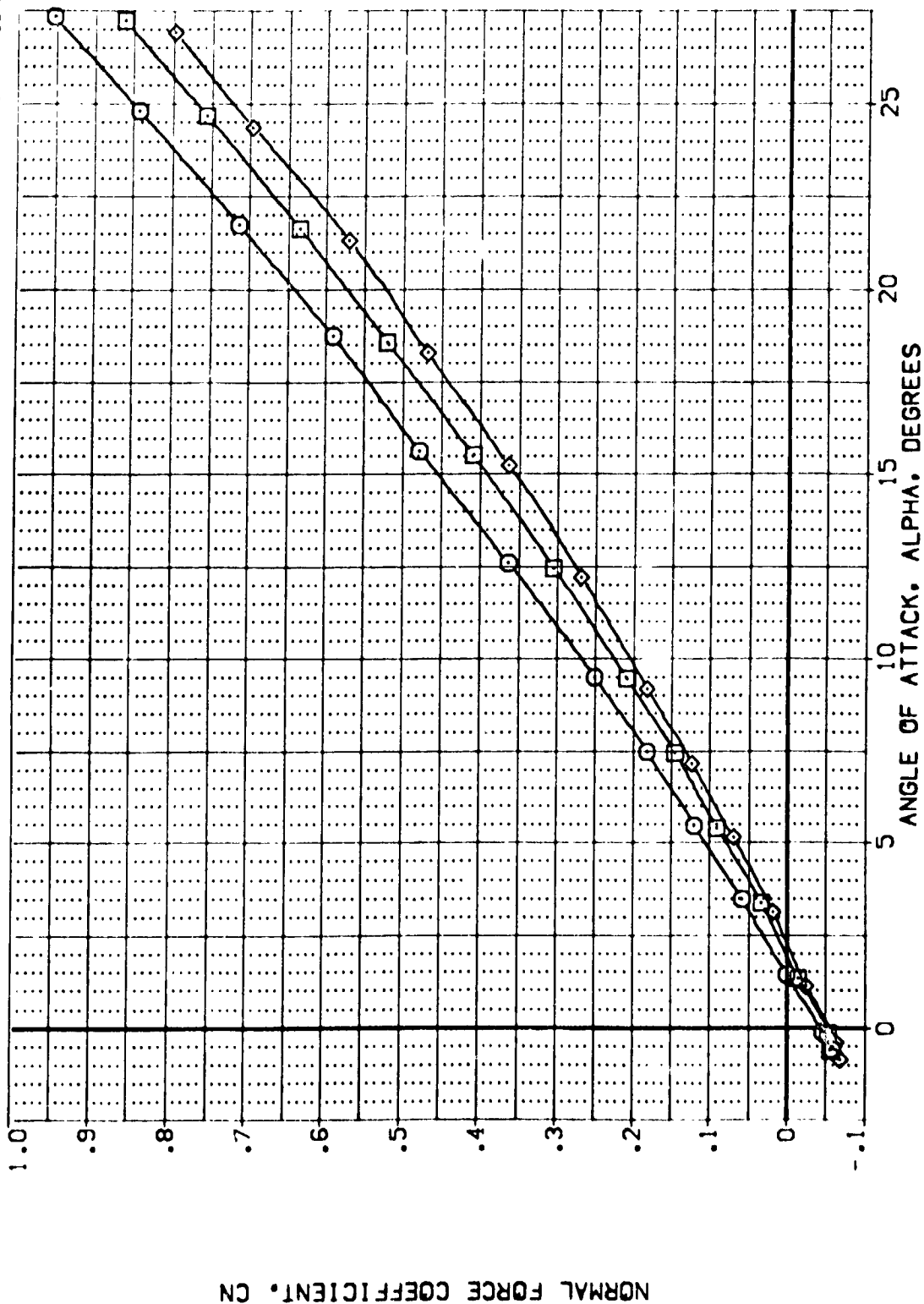


FIG. 7 ELEVON EFFECTS

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TEL016)

SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.499	AILRON	.000 ELEVON	SREF 2.4210
◇	3.001	SPDRK	.000 BDFLAP	LREF 14.244C
◇	3.499	ELEV-L	55.000 RUDDER	BREF 28.100A
			.000 ELEV-R	XREF 32.300C
				YREF .000C
				ZREF 11.700C
				SCALE .0300

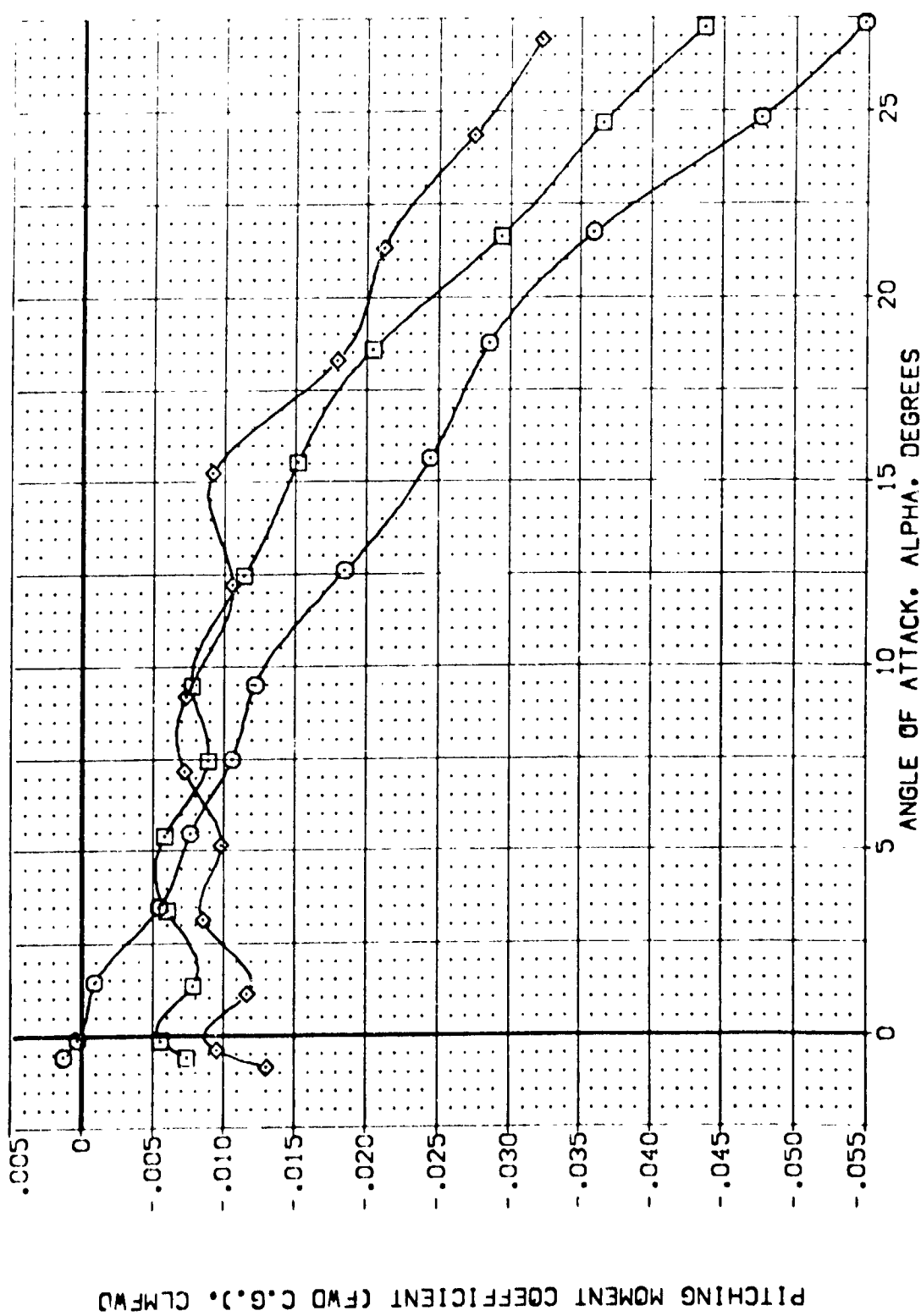


FIG. 7 ELEVON EFFECTS

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TEL016)

SYMBOL

○ ○ ○ ◇

MACH

2.499  
3.001  
3.499

BETA

.000  
A1LRON  
SPDRK  
ELEV-L

PARAMETRIC VALUES

.000 ELEVON  
.000 BOFLAP  
55.000 RUDDER  
.000 ELEV-R

REFERENCE INFORMATION  
SREF 2.4210 SQ.FT.  
LREF 14.2440  
BREF 28.1004  
XMRP 32.3010  
YMRP .0000  
ZMRP 11.2500  
SCALE .0300

PITCHING MOMENT COEFFICIENT (CFT C.G.), CLMAFT

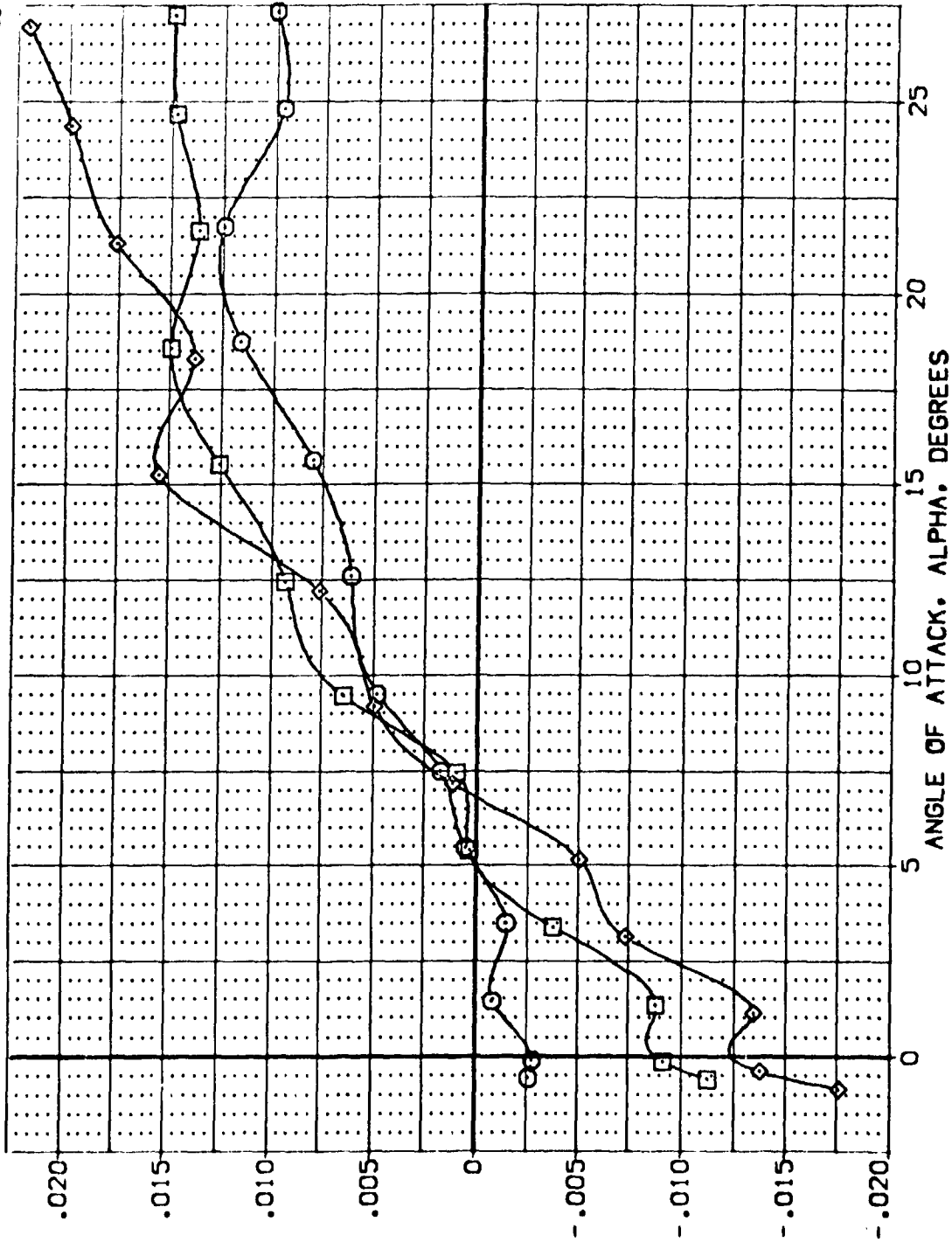
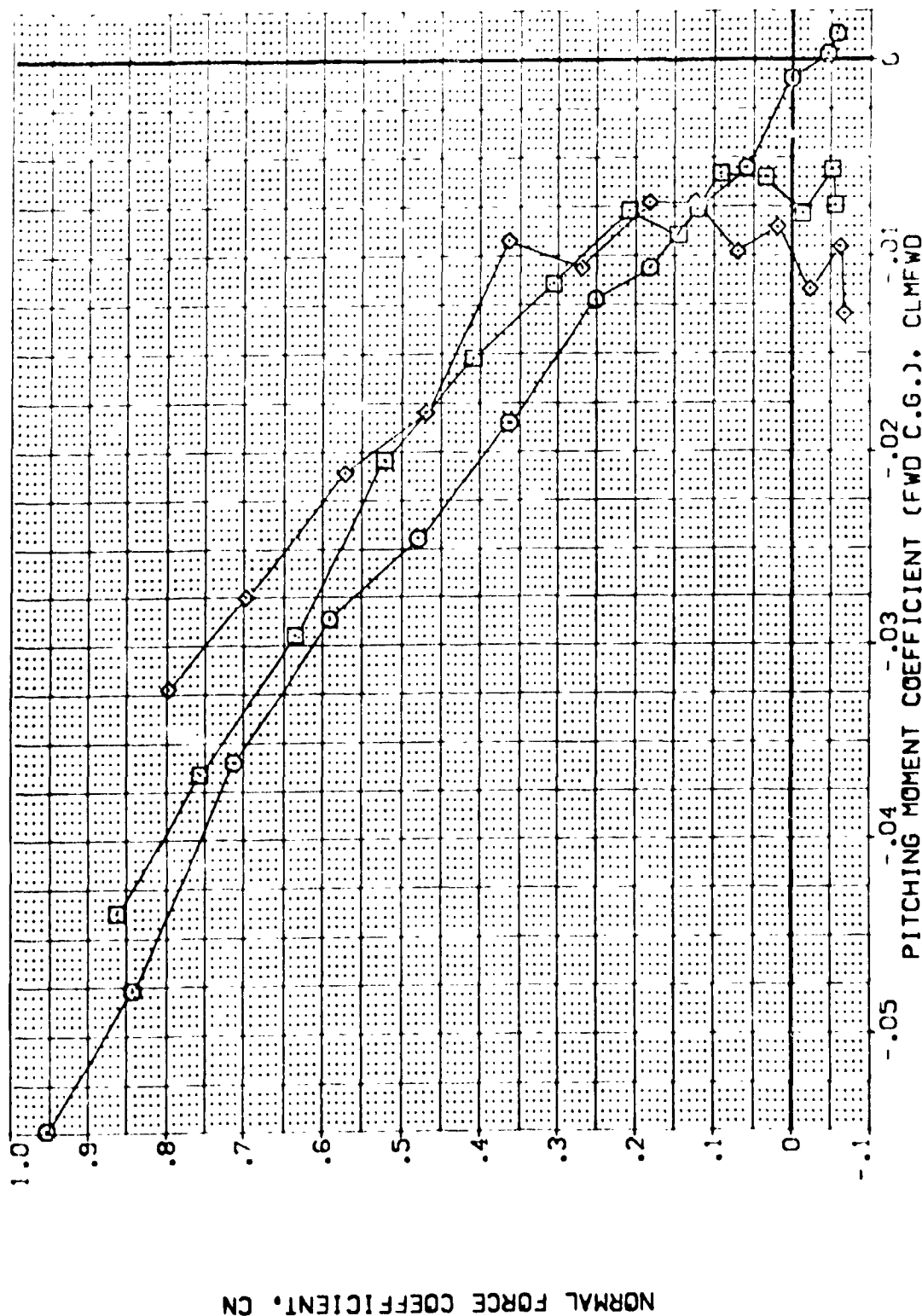


FIG. 7 ELEVON EFFECTS

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TEL016)

SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	2.499	AILRON	.000 ELEVON	SREF 2.4210
◇	3.001	SPDBRK	.000 BDFLAP	LREF 14.2440
◇	3.499	ELEV-L	56.000 RUDDER	BREF 28.1004
			.000 ELEV-R	XREF 37.3010
				YREF 11.2500
				ZREF .0300
				SCALE



ARC 87-747 OAS3C B C M F W1 V NOM. RN/L (TELO16)

SYMBOL		MACH		BETA		PARAMETRIC VALUES	
○	○	2.499	2.499	AILRON	.000	ELEVON	.000
□	□	3.001	3.001	SPOBRK	.000	BOFLAP	.000
◇	◇	3.498	3.498	ELEV-L	.000	RUDER	.000
						ELEV-R	.000

REFERENCE INFORMATION		SQ.F.	
SREF	2.4210	YREF	11.7500
LREF	14.2440	ZREF	.0300
BREF	28.1004	SCALE	
XREF	32.3010		
YREF	.0000		
ZREF	.0000		

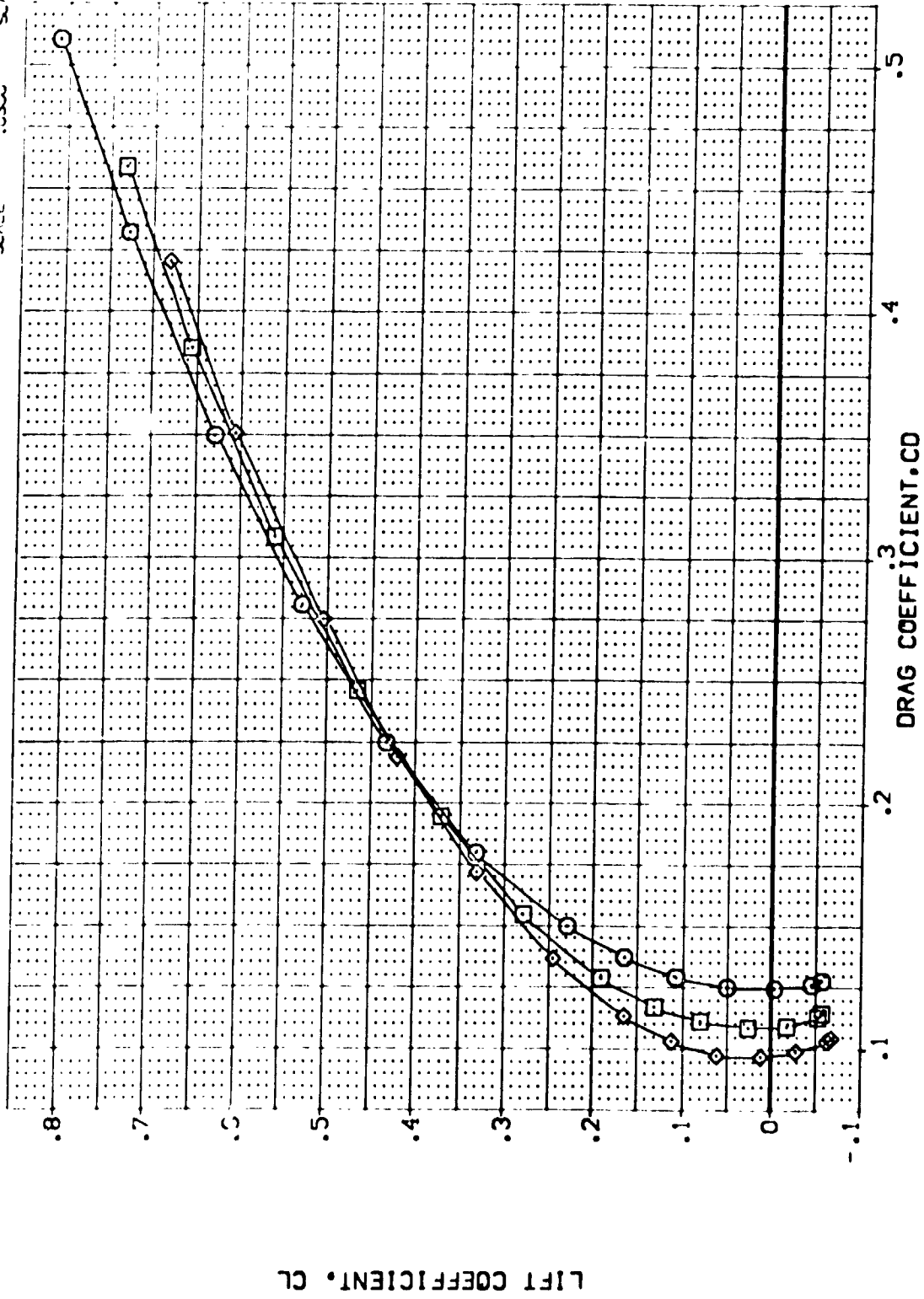


FIG. 7 ELEVON EFFECTS

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (TELD16)

SYMBOL	MAC	BETA	AILRON	SPOBRK	ELEV-L	PARAMETRIC VALUES	ELEVON	BOFLAP	RUDDER	ELEV-R
○	2.499					.000	.000	.000	.000	.000
□	3.001					.000	.000	.000	.000	.000
◇	3.499					55.000	.000	.000	.000	.000

REFERENCE INFORMATION	
SREF	2.4210
LREF	14.244
EXCF	28.073
XPRP	32.500
YPRP	11.000
ZPRP	11.2500
SCALE	10300

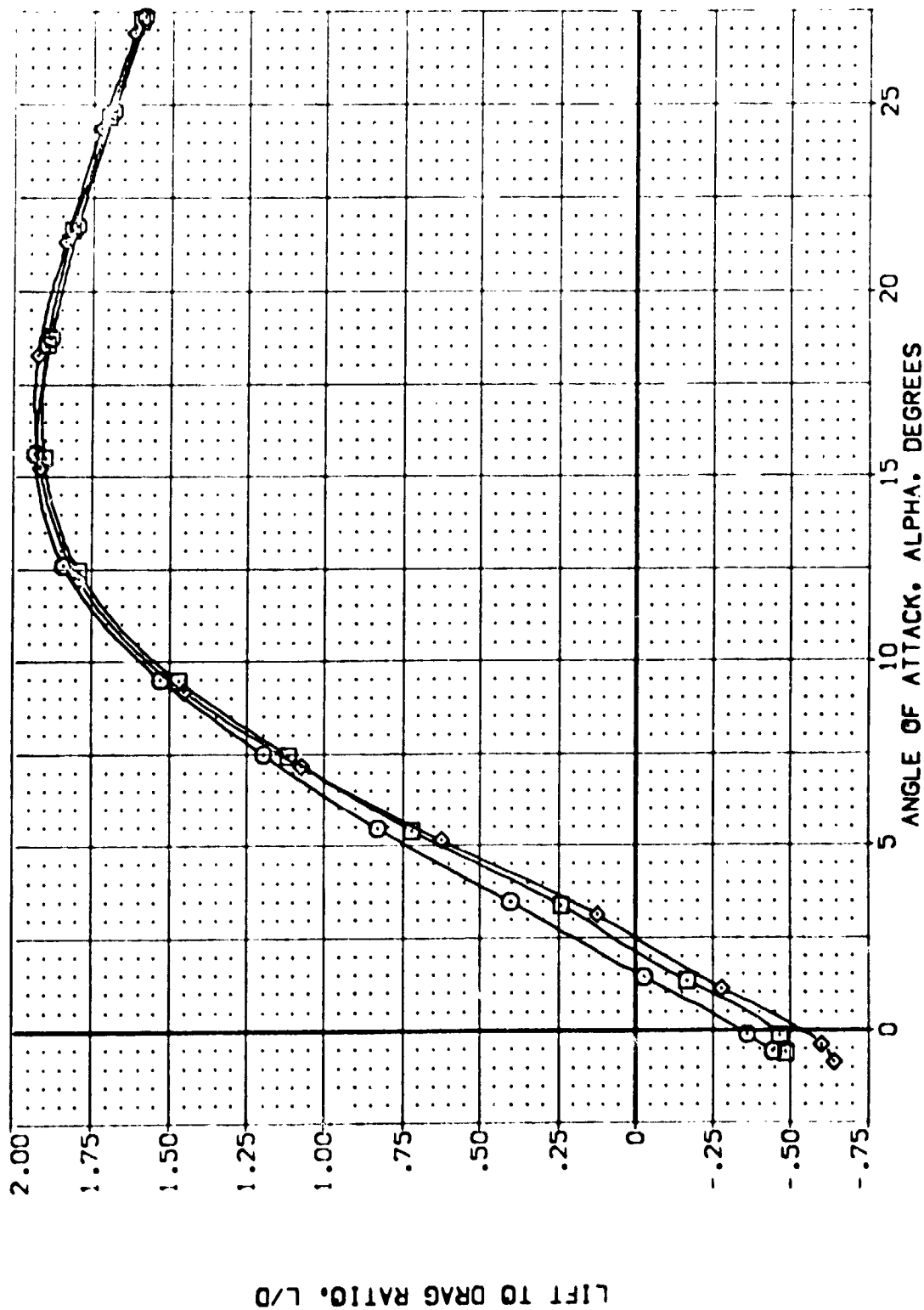


FIG. 7 ELEVON EFFECTS



ARC 87-747 0A53C B C M F W: . NOM. RN/L (A:LO:16)

SYMBOL		PARAMETRIC VALUES		REFERENCE INFORMATION		
MAC..	BETA	.000	ELEVON	SPREF	2.4210	
	AILRON	.000	BOFLAP	LRREF	14.2440	
	SPDRK	.000	RUDDER	BRREF	28.1004	
	ELEV-L	.000	ELEV-R	XMRP	32.3010	
				YMRP	0.000	
				ZMRP	11.7500	
				SCALE	0.000	
					SCALE	0.000

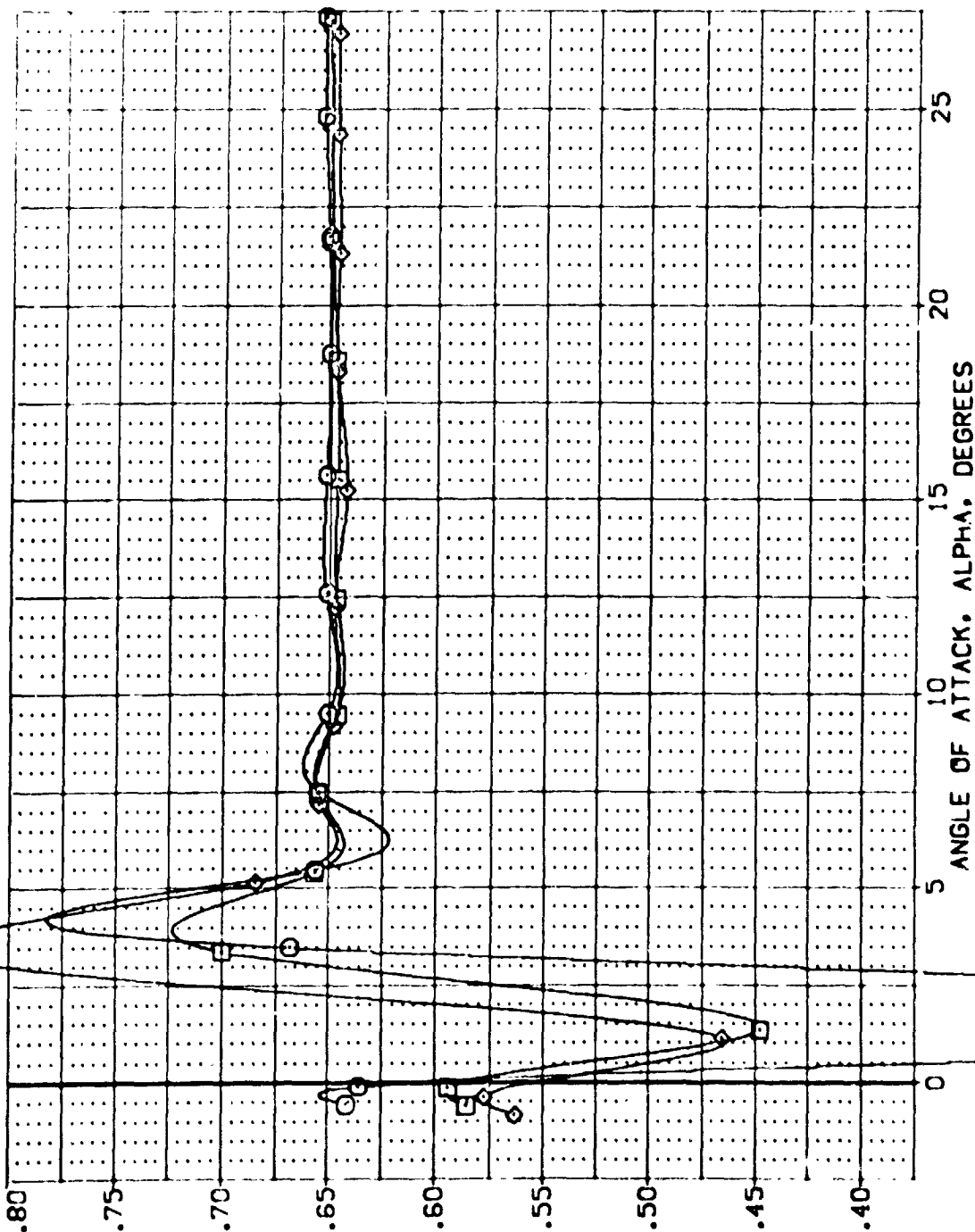


FIG. 7 ELEVON EFFECTS

DATA SET SYMBOL CONFIGURATION DESCRIPTION

TELO(10)	TELO(6)	TELO(11)	ARC 87-747	DAS3C	B	C	M	F	V	NO	RM/L
Q	Q	Q	ARC 87-747	DAS3C	B	C <td>M</td> <td>F</td> <td>V</td> <td>NO</td> <td>RM/L</td>	M	F	V	NO	RM/L
Q	Q	Q	ARC 87-747	DAS3C	B	C <td>M</td> <td>F</td> <td>V</td> <td>NO</td> <td>RM/L</td>	M	F	V	NO	RM/L

ELEVON AILRON BOFLAP SPOBRK REFERENCE INFORMATION

ELEVON	AILRON	BOFLAP	SPOBRK	SREF	2.4210	50.17
.000	.000	16.300	55.000	REF	14.2440	50.17
.000	.000	.000	55.000	REF	28.1004	50.17
.000	.000	-11.700	55.000	REF	32.3010	50.17
				SCALE	11.2500	50.17
				SCALE	.0300	50.17

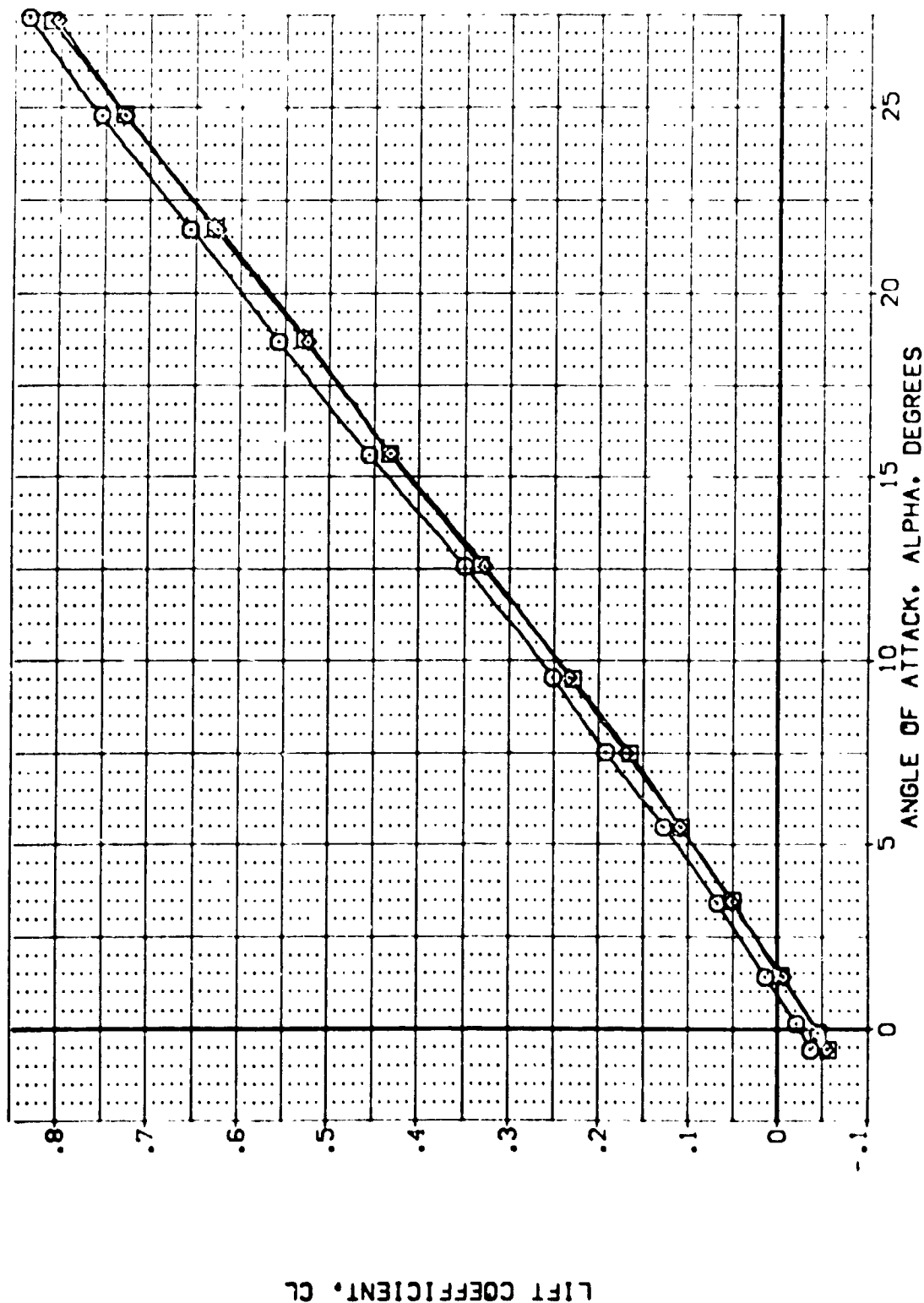


FIG. 8 BODYFLAP EFFECTS

(A) MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AIRLON	BOFLAP	SPEEDK	REFERENCE INFORMATION
(YEL0:0)	ARC 87-747 OASIC B C M F V1	.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
(YEL0:6)	ARC 87-747 OASIC B C M F V1	.000	.000	.000	55.000	LREF 14.2440
(YEL0:11)	ARC 87-747 OASIC B C M F V1	.000	.000	-11.700	55.000	BREF 28.1004
						XREF 32.3010
						YREF 11.2500
						ZREF 11.2500
						SCALE .0300

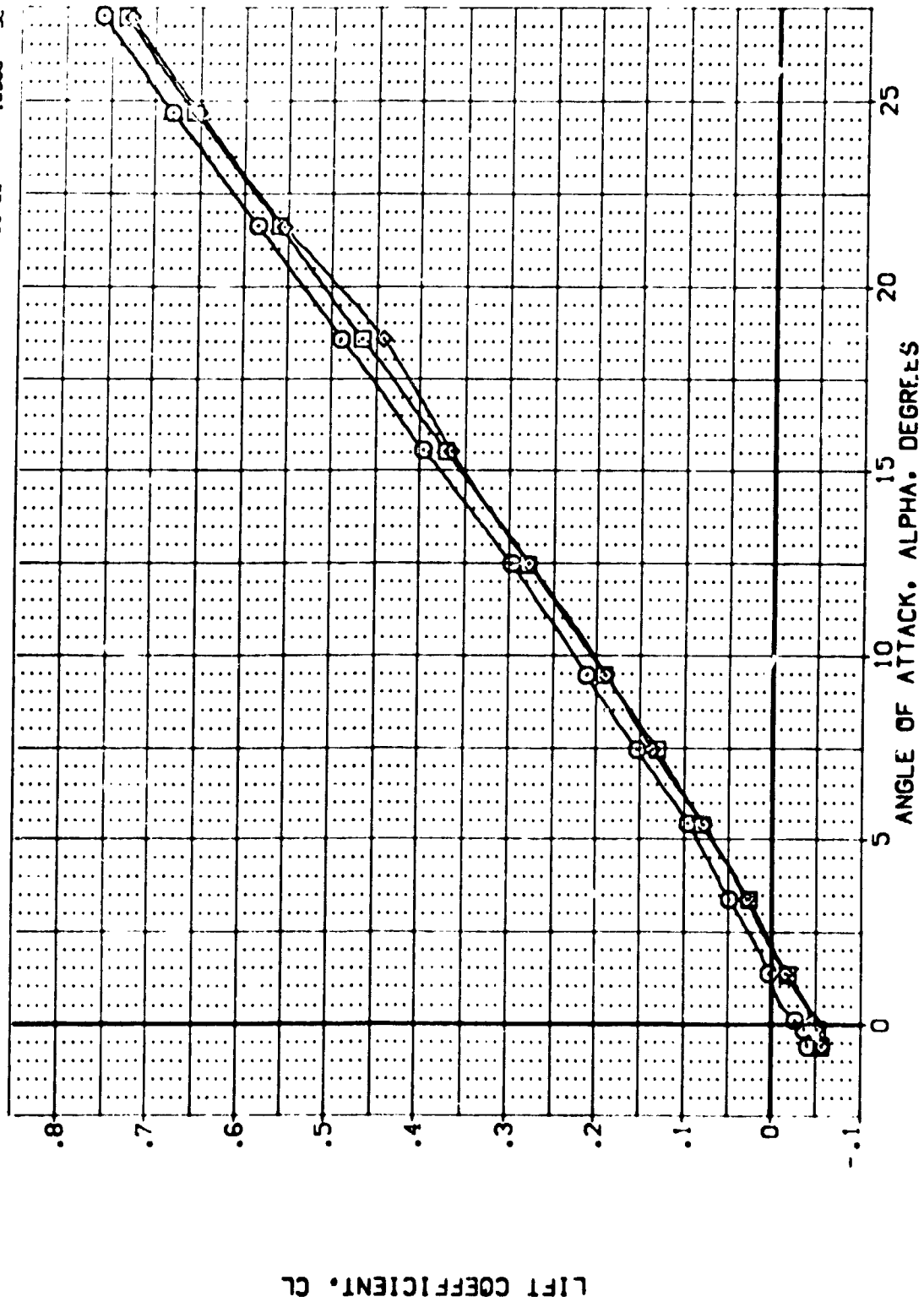


FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOILER	SREF	2.4210	50. FT.
[E-010]	ARC 87-747 QAS3C B C M F V1	.000	.000	15.300	55.000	LREF	14.2440	IN.
[E-016]	ARC 87-747 QAS3C B C M F V1	.000	.000	.000	55.000	BREF	28.1004	IN.
[E-011]	ARC 87-747 QAS3C B C M F V1	.000	.000	-11.700	55.000	XMRP	32.3010	IN.
						YMRP	.0000	IN.
						ZMRP	11.2500	IN.
						SCALE	.0300	SCALE

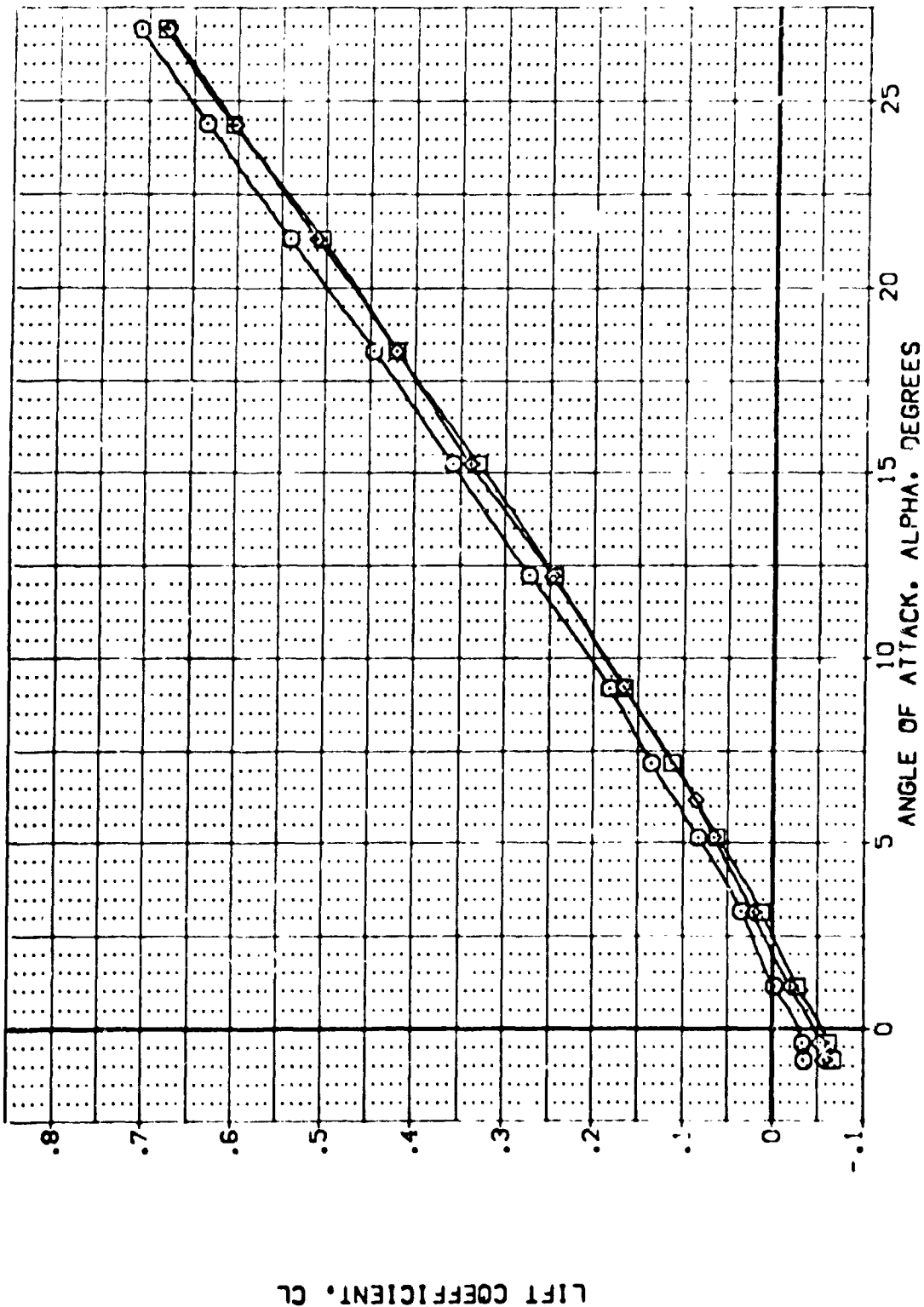


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AIRLIFT	BOFLAP	SPOBRK	REFERENCE INFORMATION
(TEC010)	ARC 87-747 CAS3C B C H F VI V	.000	.000	16.300	55.000	SREF 2.4210 50.171
(TEC016)	ARC 87-747 CAS3C B C H F VI V	.000	.000	.000	55.000	LREF 14.2440
(TEC017)	ARC 87-747 CAS3C B C H F VI V	.000	.000	-11.700	55.000	BREF 28.1004
						YMRP 32.3010
						ZMRP .0000
						SCALE 11.2500
						SCALE .0300

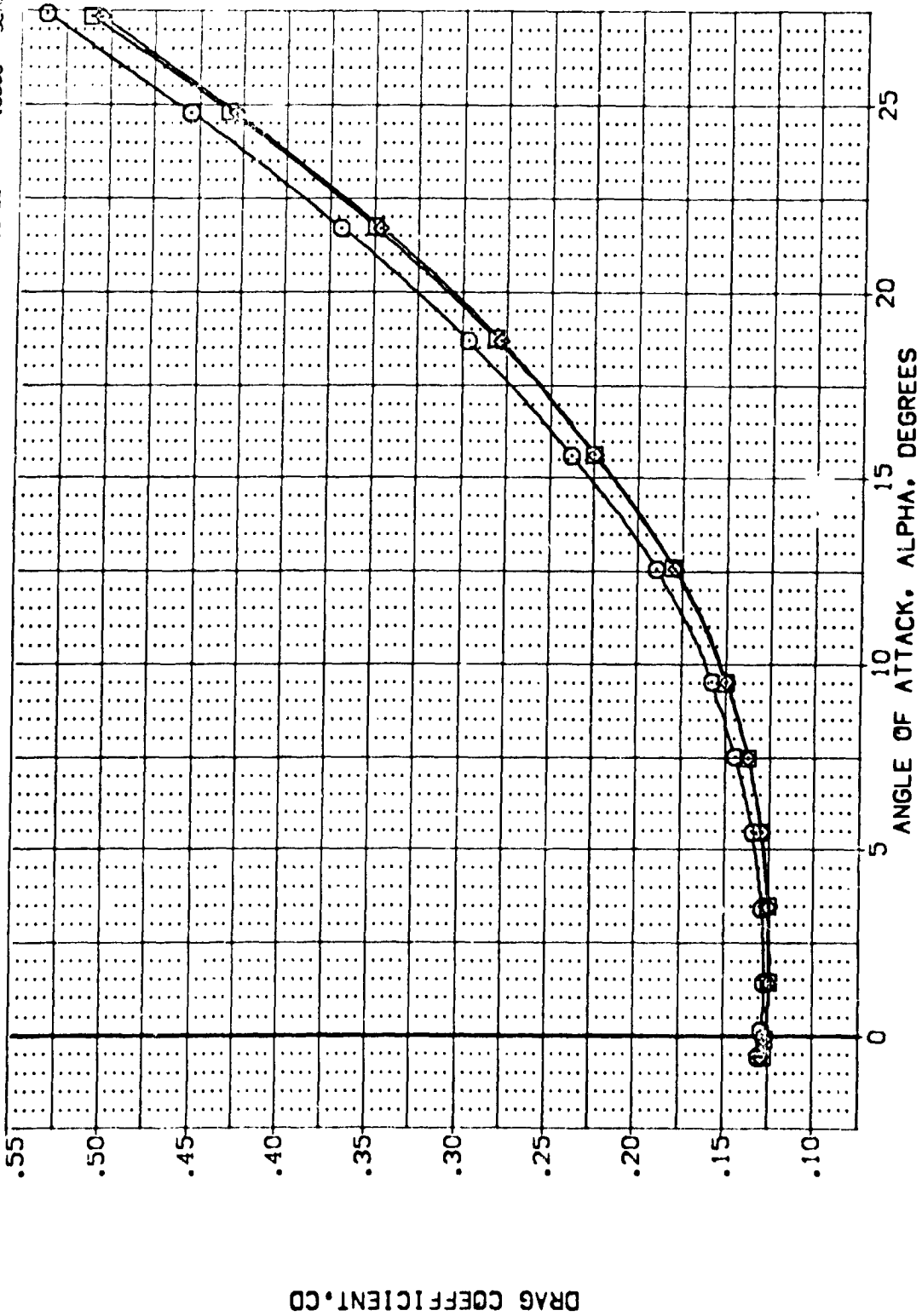


FIG. 8 BODYFLAP EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVON ATTILRON BODYLAP SPDBRK REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ATTILRON	BODYLAP	SPDBRK	REFERENCE INFORMATION
[TELO10]	ARC 87-747 OAS3C B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210 50.5 FT.
[TELO16]	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	55.000	LRFF 14.2440
[TELO11]	ARC 87-747 OAS3C B C M F VI V	.000	.000		55.000	BRFF 28.1004
						XRFF 32.3010
						YMRFF .0000
						ZMRFF .0000
						SCALE 11.2500
						SCALE 55.000

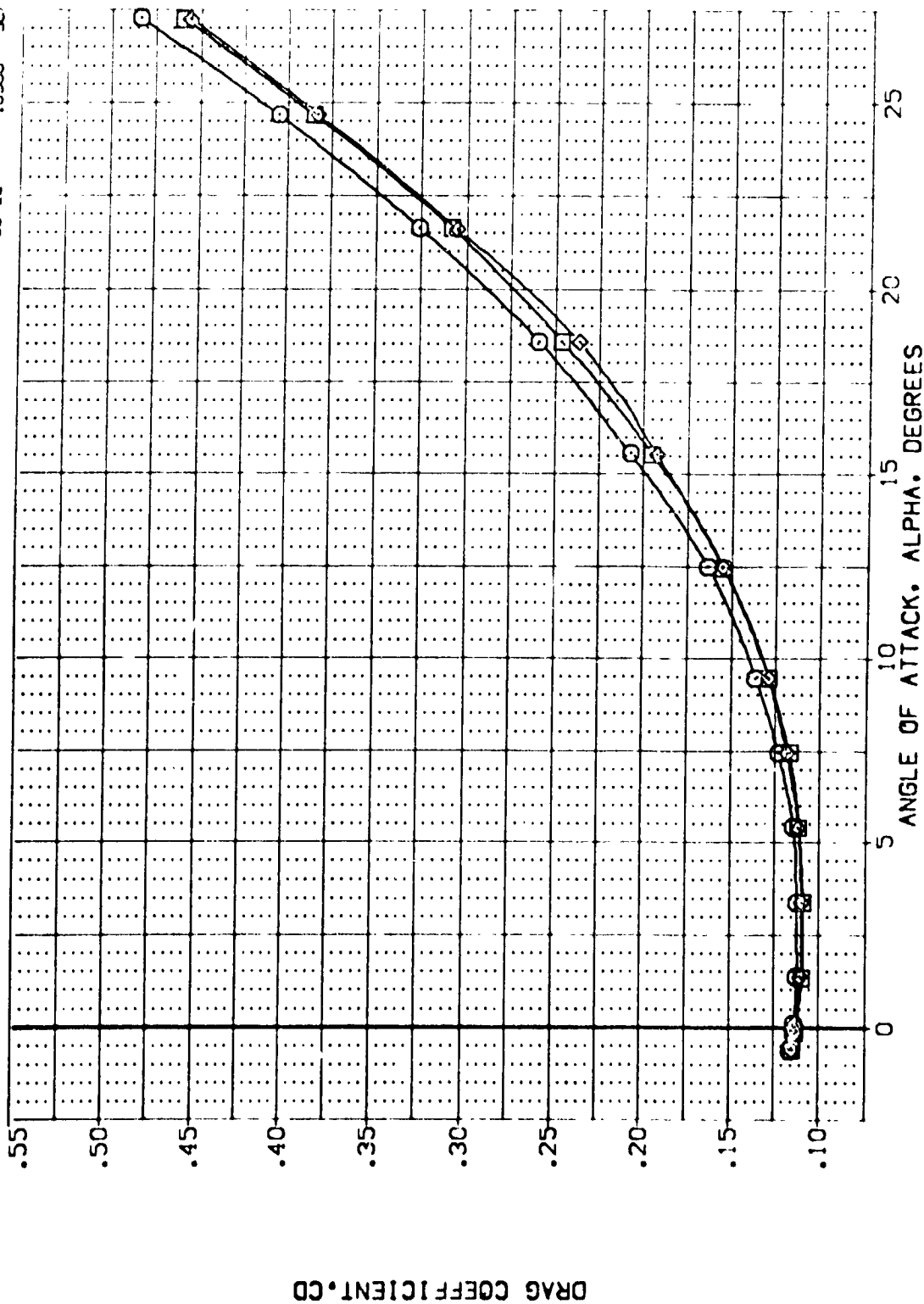


FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BDF LAP	SPOTBARK	REFERENCE INFORMATION
[TELO:3]	ARC 87-747 OAS3C B C M F VI	.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
[TELO:6]	ARC 87-747 OAS3C B C M F VI	.000	.000	.000	55.000	LREF 14.244C
[TELO:1:]	ARC 87-747 OAS3C B C M F VI	.000	.000	-11.700	55.000	BREF 28.1004
						XREF 32.3013
						YREF .0000
						ZREF .0000
						SCALE 11.0000
						SCALE 0.0000

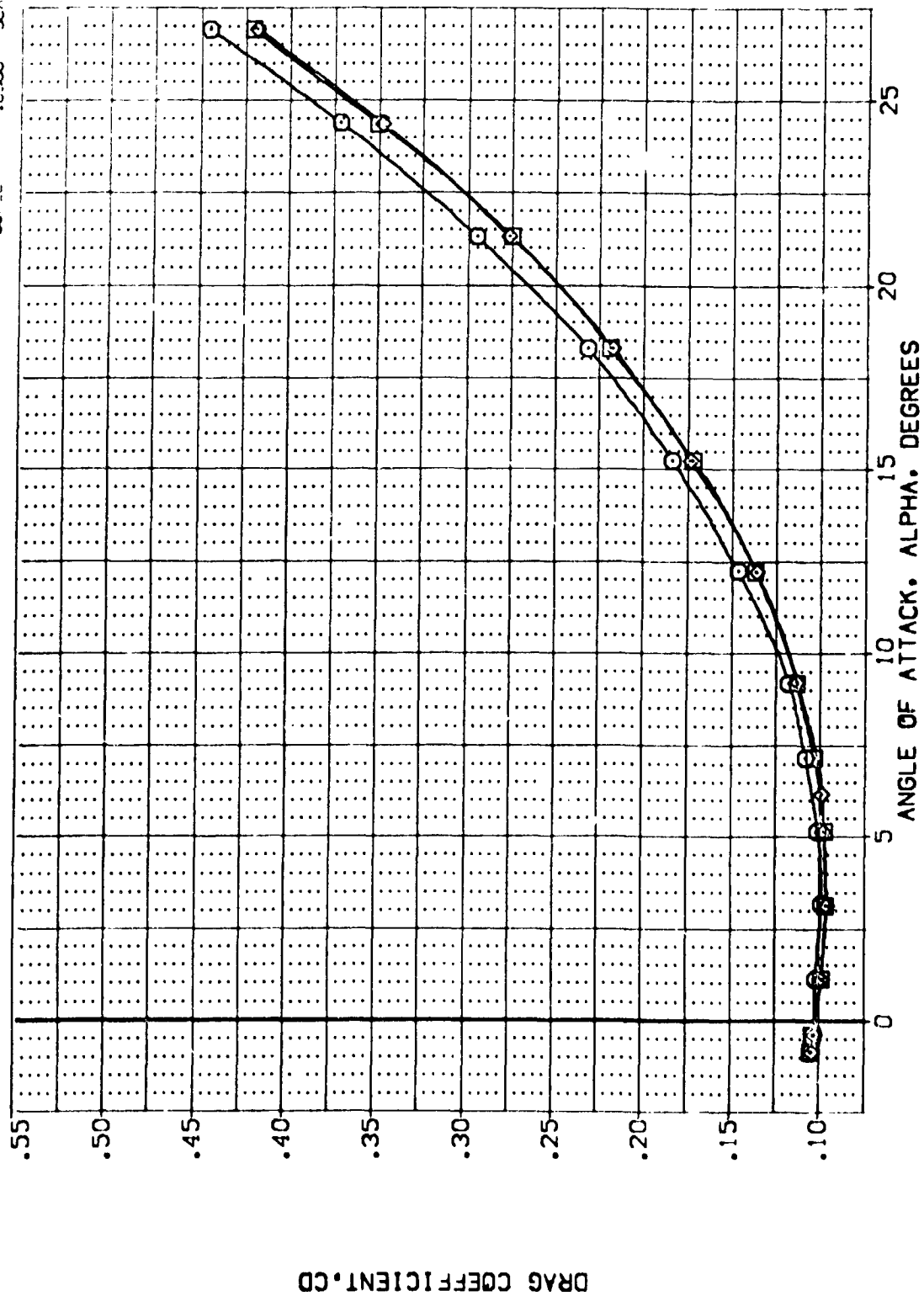


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    AIRLON    BODYLAP    SPOBRK    REFERENCE INFORMATION

[TELO:0]	ARC 87-747 OAS3C B C M F V	.000	.000	16.300	55.000	SREF	2.4210	50.00
[TELO:6]	ARC 87-747 OAS3C B C M F V	.000	.000	.000	55.000	LREF	14.2440	50.00
[TELO:11]	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	55.000	BREF	28.1004	50.00
						XMRP	32.3010	50.00
						YMRP	.0000	50.00
						ZMRP	11.2500	50.00
						SCALE	.0300	50.00

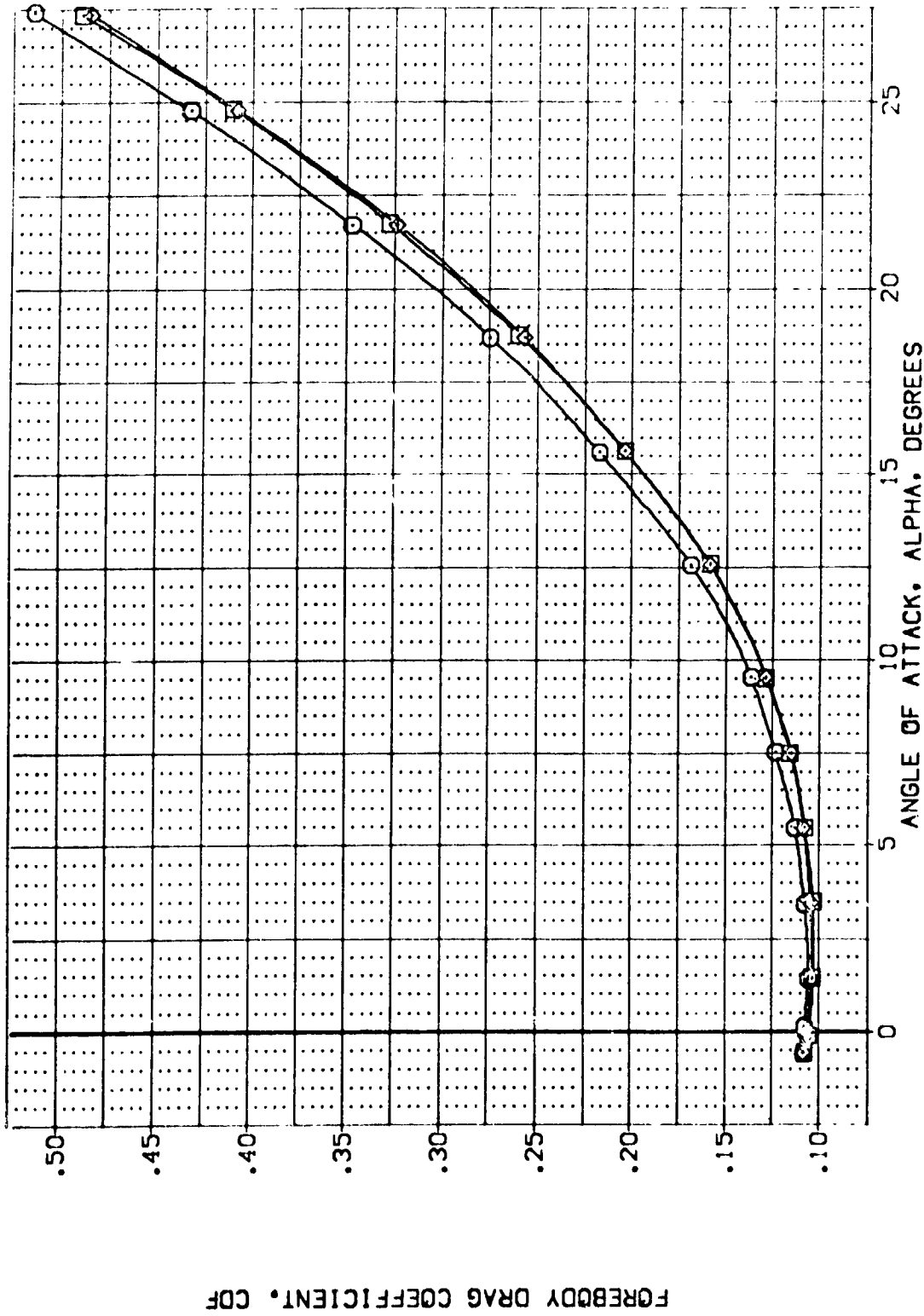


FIG. 8 BODYFLAP EFFECTS

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BODY FLAP	SPOILER	REFERENCE INFORMATION
(E-0:0)	ARC 87-747 CAS3C B C M F VI V	.000	.000	16.300	55.000	SREF 2.4710 SQ.F.
(E-0:6)	ARC 87-747 CAS3C B C M F VI V	.000	.000	.000	55.000	LREF 14.2440
(E-0:1)	ARC 87-747 CAS3C B C M F VI V	.000	.000	-11.700	55.000	BREF 281.0004
						XREF 32.3010
						YREF .0000
						ZREF 7.4000
						SCALE 11.2500
						SCALE .0300

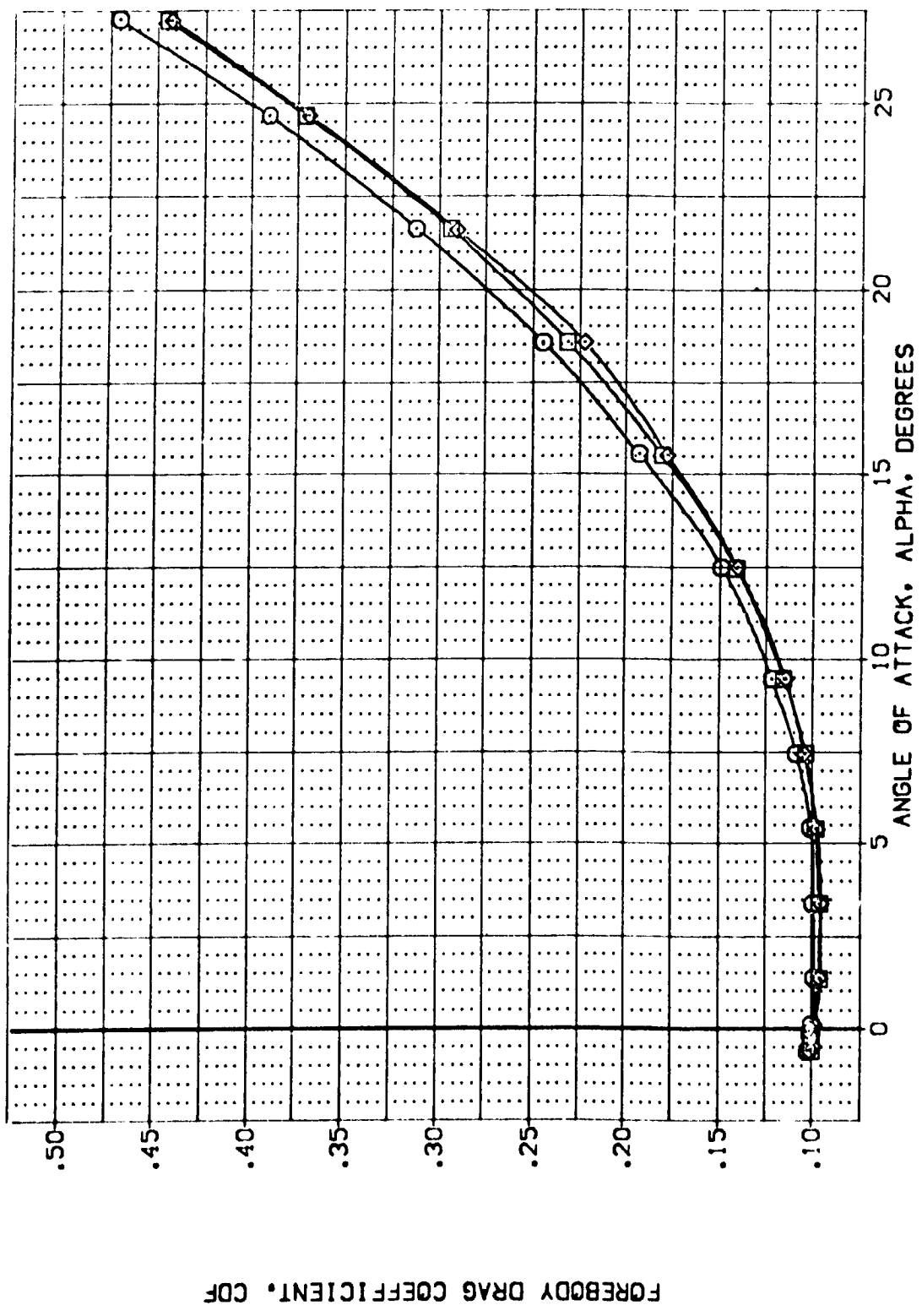


FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    AILERON    BODY LAP    SPDBRK    REFERENCE INFORMATION

[TELO10]	ARC 87-747 OAS3C B C M F VI V	.000	.000	15.300	55.000	SREF	2.4210	50. FT.
[TELO16]	ARC 87-747 OAS3C B C M F VI V	.000	.000	15.000	55.000	LREF	14.2440	N:
[TELO11]	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	55.000	BREF	28.1004	N:
						XMRP	32.3013	N:
						YMRP	.0000	N:
						ZMRP	11.7500	N:
						SCALE	.0300	SCALE

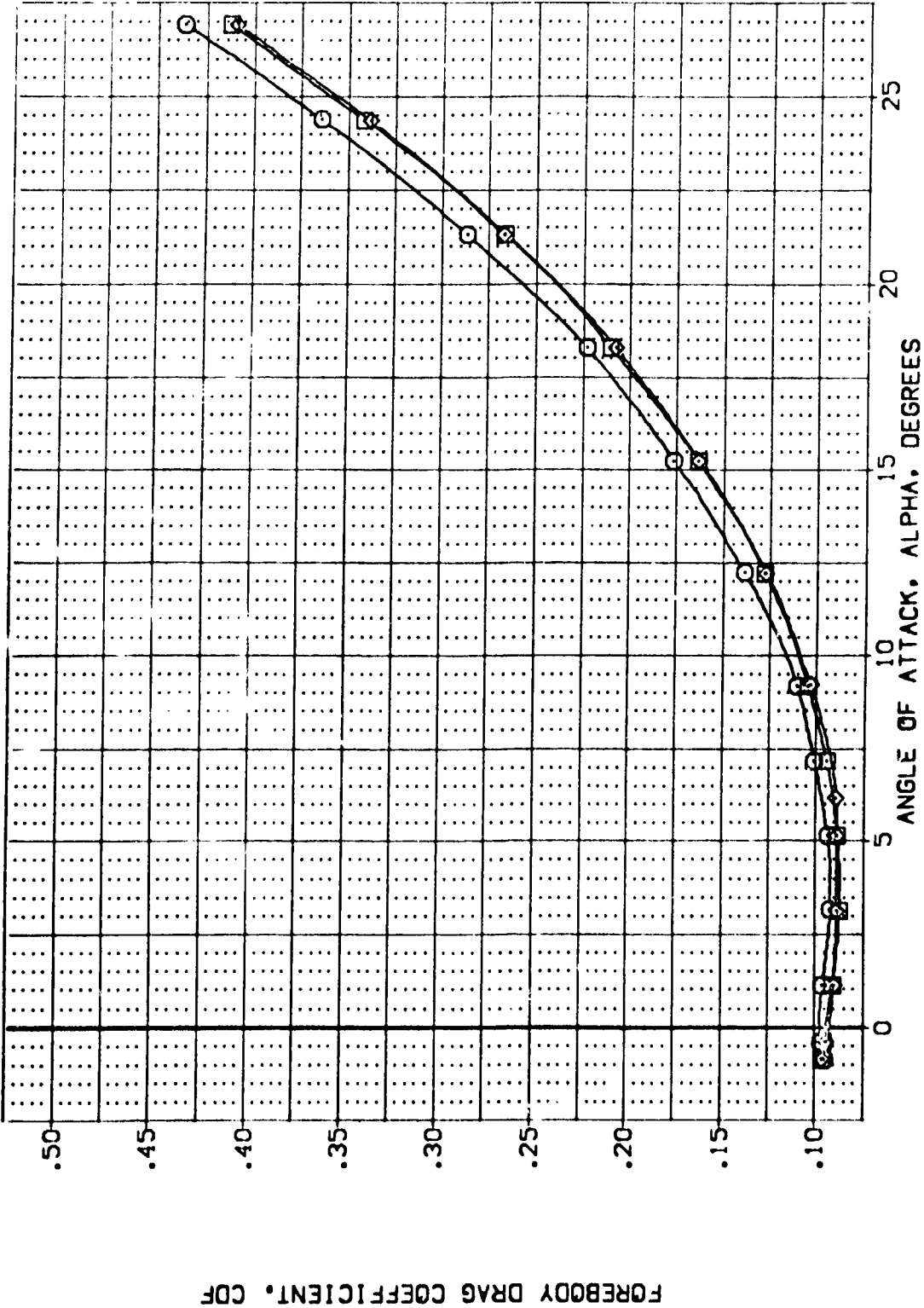


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
{TEL010}	ARC 87-747 BAS3C B C M F V1 V	.000	.000	16.300	55.000	SREF 2.4210 50.000
{TEL016}	ARC 87-747 BAS3C B C M F V1 V	.000	.000	.000	55.000	LREF 1.2440 50.000
{TEL011}	ARC 87-747 BAS3C B C M F V1 V	.000	.000	-11.700	55.000	BREF 28.1004 50.000
						XMRP 32.3010 50.000
						YMRP .0000 50.000
						ZMRP .0000 50.000
						SCALE 11.2500 50.000

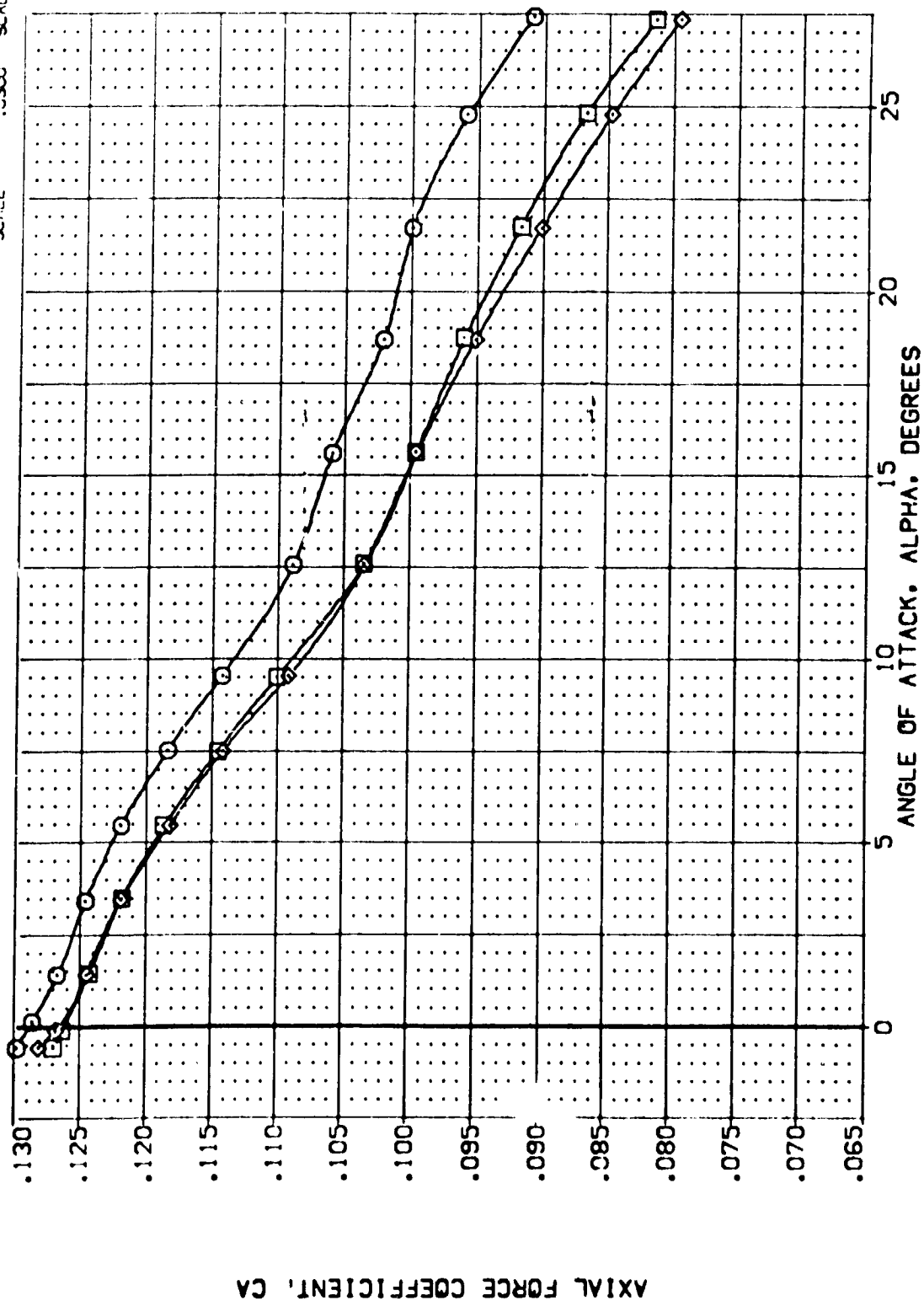


FIG. 8 BODYFLAP EFFECTS  
(A)MACH = 2.50

DATA SET SYMBOL: (TELO:10) (TELO:16) (TELO:11)

CONFIGURATION DESCRIPTION: ARC 87-747 OAS3C B C M F VI V NOM: RN/L ARC 87-747 OAS3C B C M F VI V NOM: RN/L ARC 87-747 OAS3C B C M F VI V NOM: RN/L

ELEVATION: .000 .000 .000

AIRLIFT: .000 .000 .000

BDFLAP: 16.300 .000 -11.700

SPOBRK: 55.000 55.000 55.000

REFERENCE INFORMATION: SREF 2.4210 SC.FT. LREF 14.2440 SC.FT. BRIF 28.1000 SC.FT. XMRP 32.3000 SC.FT. YMRP 32.3000 SC.FT. ZMRP 11.7500 SC.FT. SCALE .0300

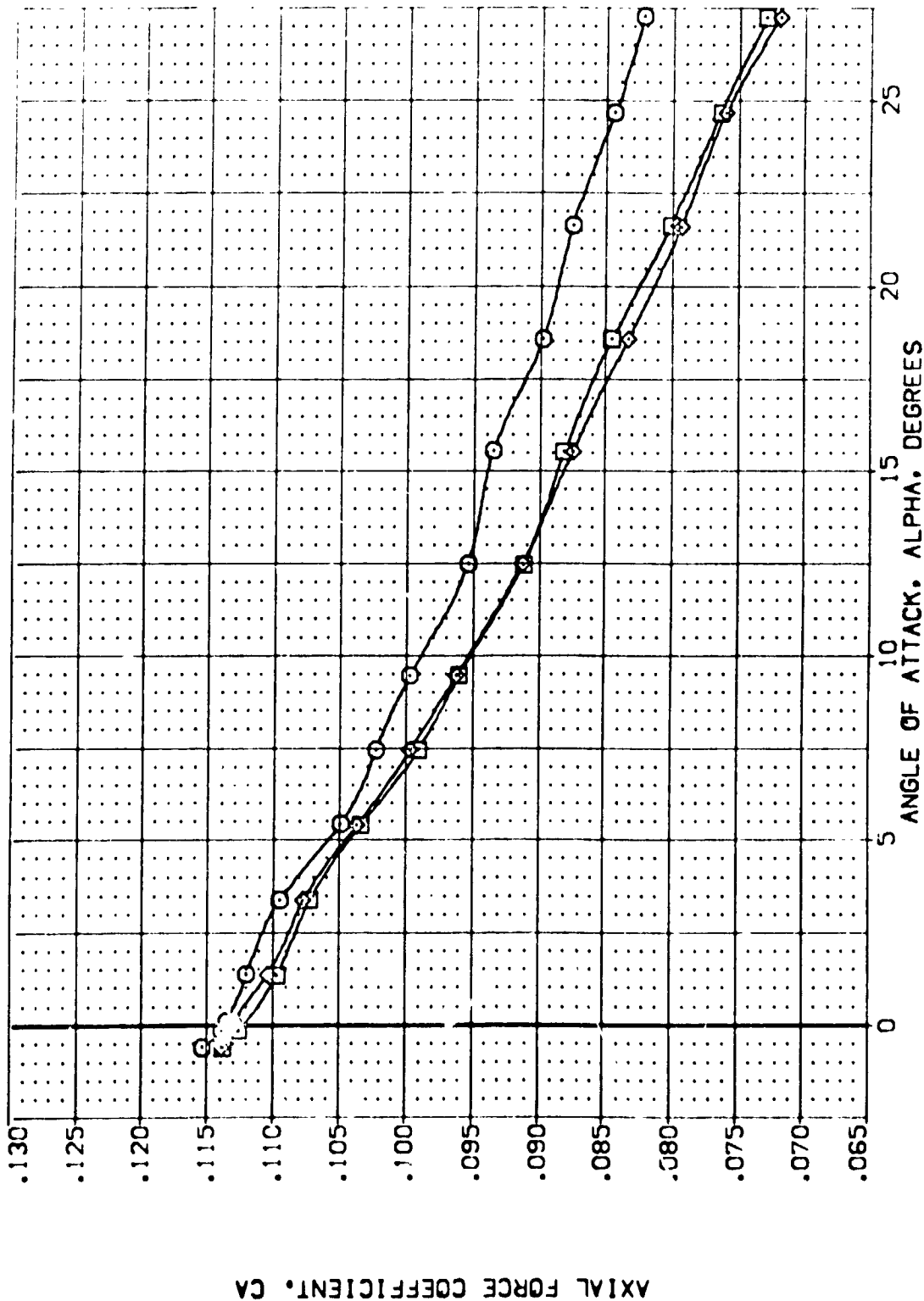


FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL: (TELO10) (TELO16) (TELO11)

CONFIGURATION DESCRIPTION: ARC 87-747 OAS3C B C M F VI V NOM: RNVL ARC 87-747 OAS3C B C M F VI V NOM: RNVL ARC 87-747 OAS3C B C M F VI V NOM: RNVL

ELEVON: .000 .000 .000

AILERON: .000 .000 .000

BOFLAP: 16.300 .000 -11.700

SPDBRK: 55.000 55.000 55.000

REFERENCE INFORMATION: SREF 2.4210 50. FT. LREF 14.2440 IN. BREF 28.1004 IN. XMRD 32.3010 IN. YMRD 5000 IN. ZMRD 11.2500 IN. SCALE .0300

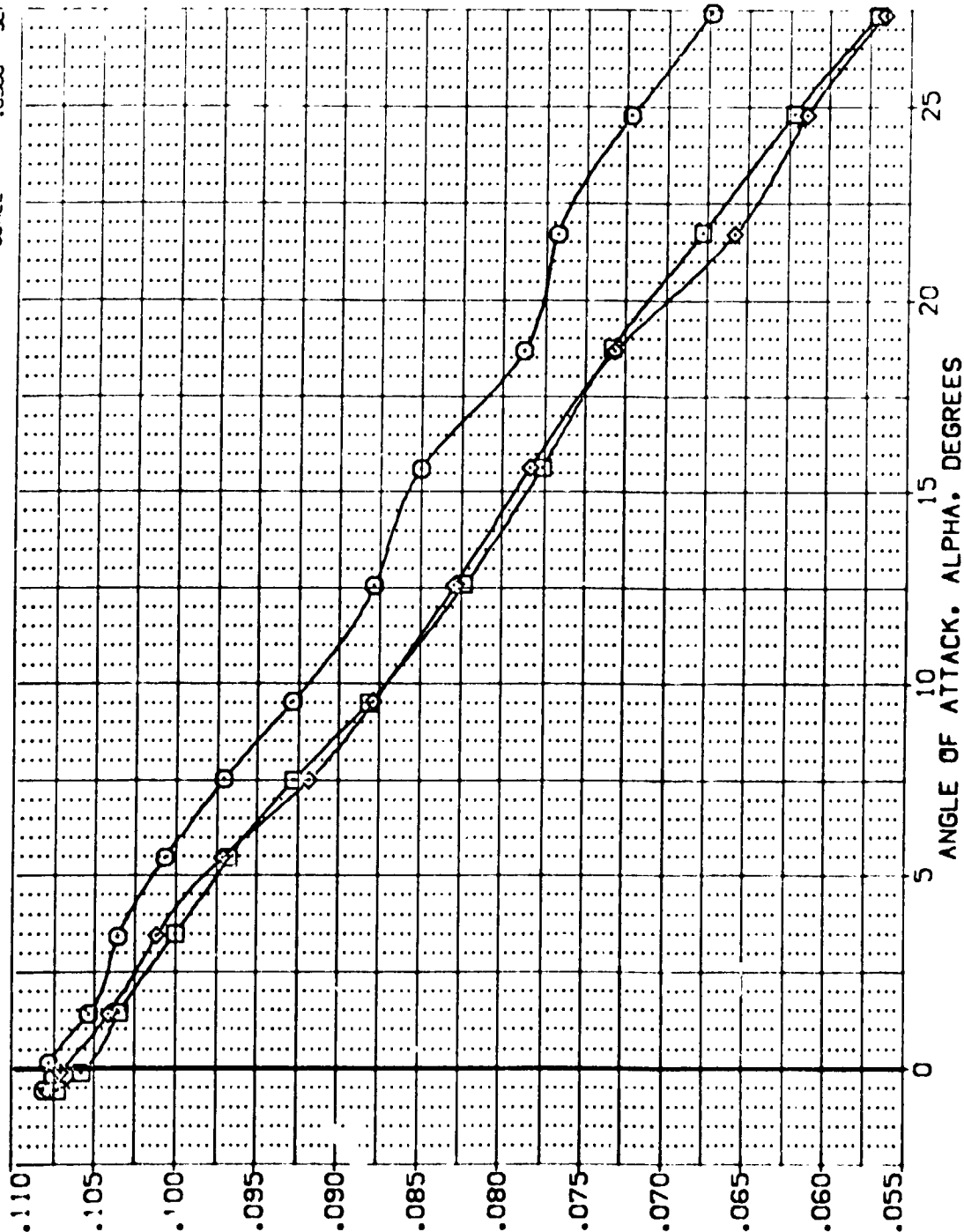


FIG. 8 BODYFLAP EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	ALLISON	BOFLAP	SPOBRK	REFERENCE INFORMATION
ARC 87-747	CAS3C B C M F V	.000	.000	15.300	55.000	SREF 2.4213
ARC 87-747	CAS3C B C M F V	.000	.000	.000	55.000	LREF 14.2440
ARC 87-747	CAS3C B C M F V	.000	.000	-11.700	55.000	BREF 28.1004
						YREF 32.9013
						ZREF 11.2000
						SCALE .0003

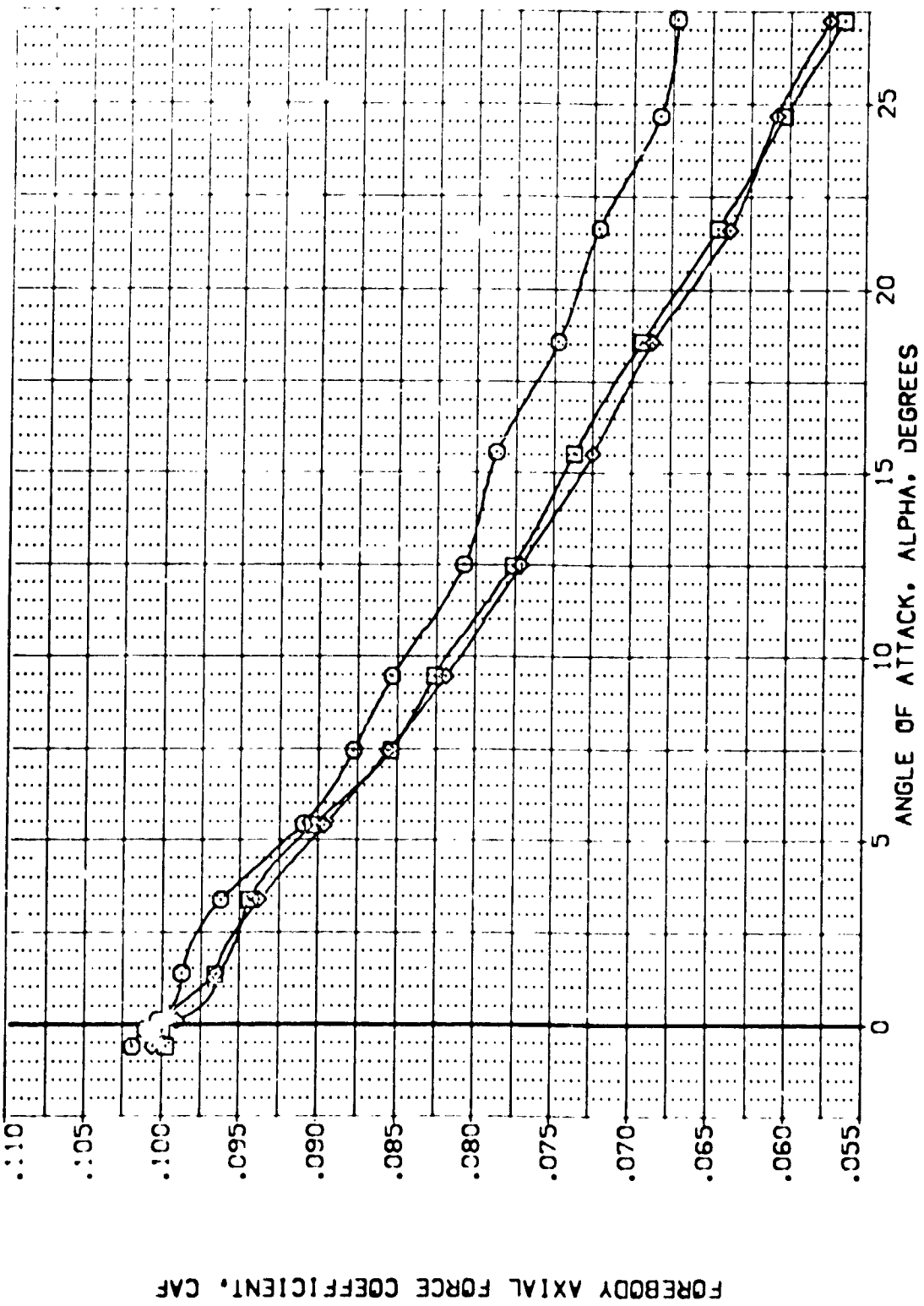


FIG. 8 BODYFLAP EFFECTS

(B) MACH = 3.00





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPODBK	REFERENCE INFORMATION
(TELO:0)	ARC 87-747 DASSC B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210 55.171
(TELO:1)	ARC 87-747 DASSC B C M F VI V	.000	.000	.000	55.000	LREF 14.2440
(TELO:2)	ARC 87-747 DASSC B C M F VI V	.000	.000	-11.700	55.000	BREF 28.1004
						XREF 32.3010
						YREF 11.2520
						ZREF 11.2520
						SCALE 11.2520

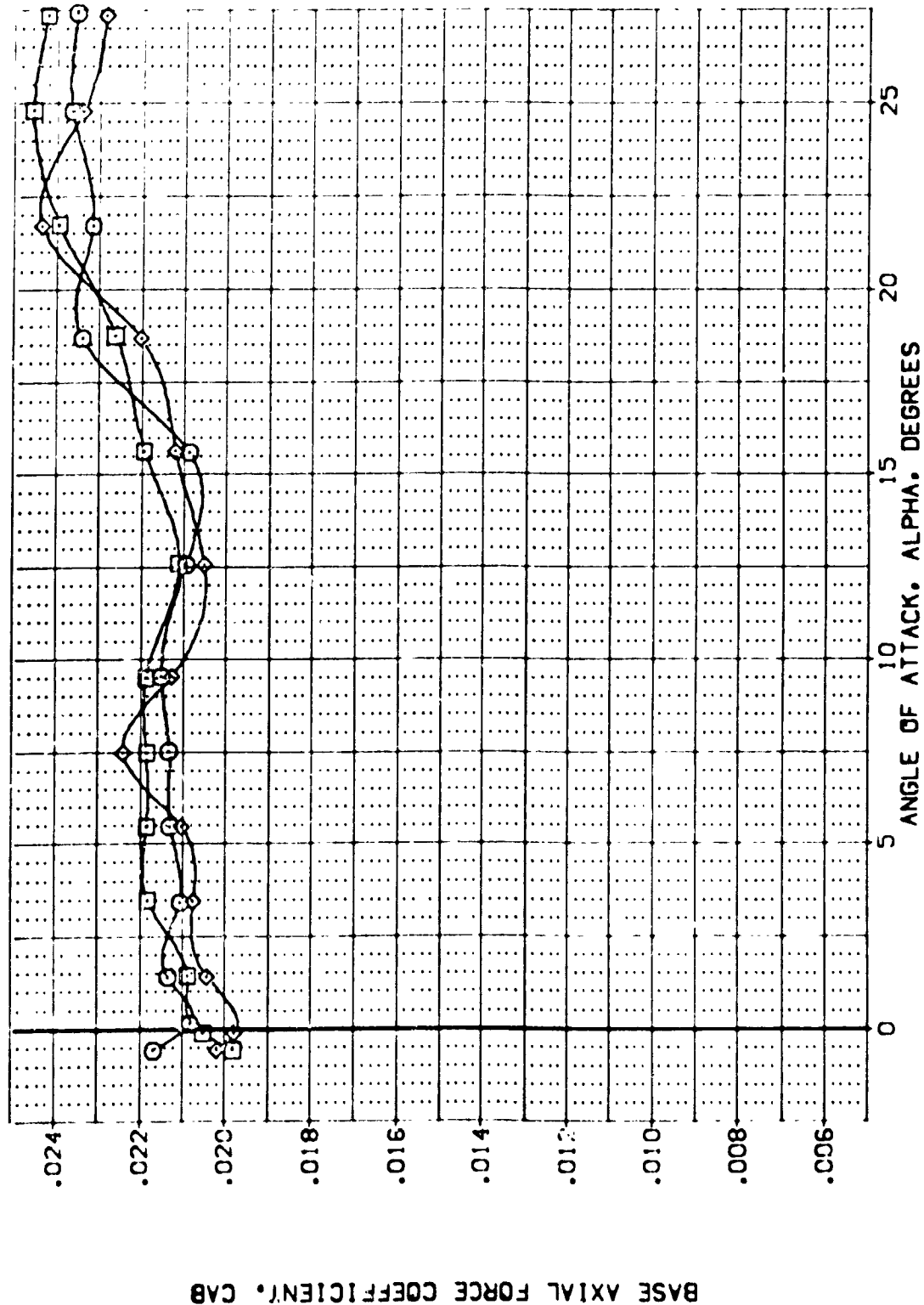


FIG. 8 BODYFLAP EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVON AILLON BOFLAP SPOBRK REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
Q	ARC 87-747 CASIC B C M F V V	.000	.000	15.300	55.000	SREF 2.4210 SQ.FT.
Q	ARC 87-747 CASIC B C M F V V	.000	.000	.000	55.000	LREF 14.2440
Q	ARC 87-747 CASIC B C M F V V	.000	.000	-11.700	55.000	BREF 28.1004
						XMED 32.3010
						YMED 11.2000
						ZMED 11.2000
						SCALE .0300

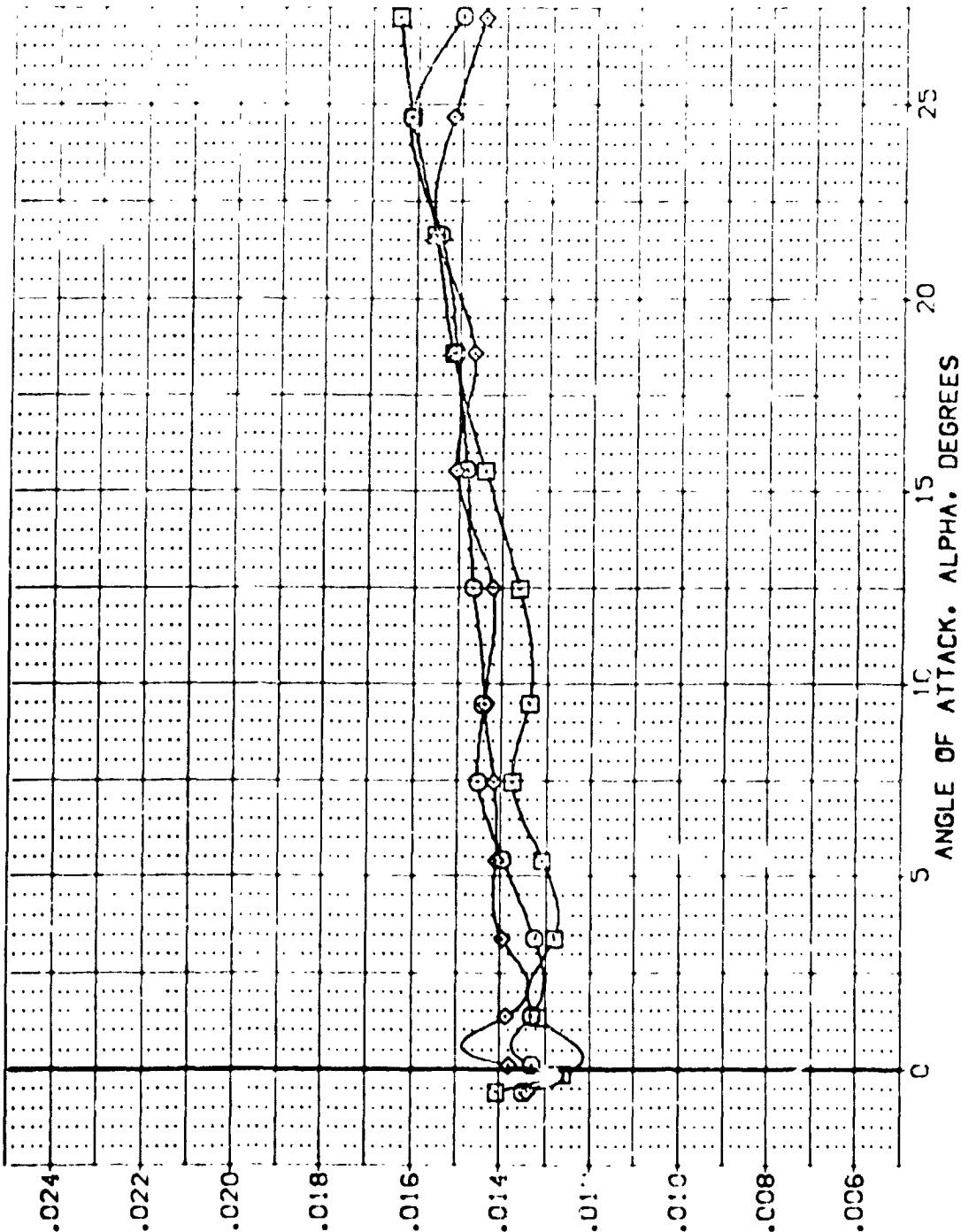


FIG. 8 BODYFLAP EFFECTS

(B)  $\alpha_{AC} = 3.00$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILTRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(FELC01)	ARC 87-747 OAS3C B C M F V1 V	.000	.000	16.300	55.000	SREF 2.4210 50. FT.
(FELC06)	ARC 87-747 OAS3C B C M F V1 V	.000	.000	16.300	55.000	LREF 14.2440 10. N.
(FEL011)	ARC 87-747 OAS3C B C M F V1 V	.000	.000	-11.700	55.000	BRFF 28.1004 10. N.
						VMDD 32.3010 10. N.
						VMDD .0000 10. N.
						ZMRP 11.2500 10. N.
						SCALE .0300

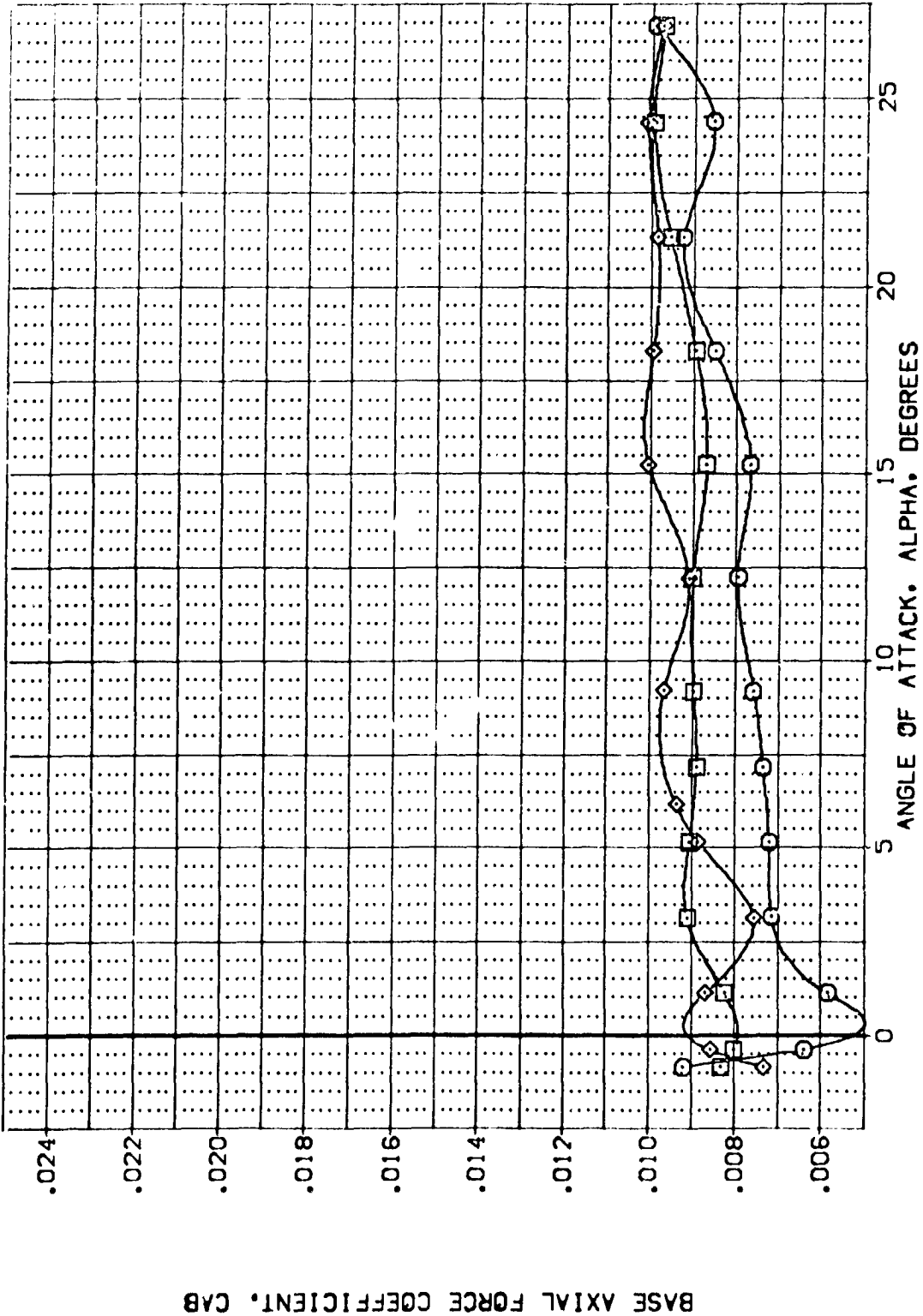


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPODBRK	REFERENCE INFORMATION
[TELO10]	ARC 87-747 CAS3C B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210
[TELO16]	ARC 87-747 CAS3C B C M F VI V	.000	.000	16.300	55.000	LREF 14.2440
[TELO11]	ARC 87-747 CAS3C B C M F VI V	.000	.000	-11.700	55.000	BRF 28.1004
						XBREF 32.3010
						YBREF 11.7000
						ZBREF 11.7000
						SCALE .0300

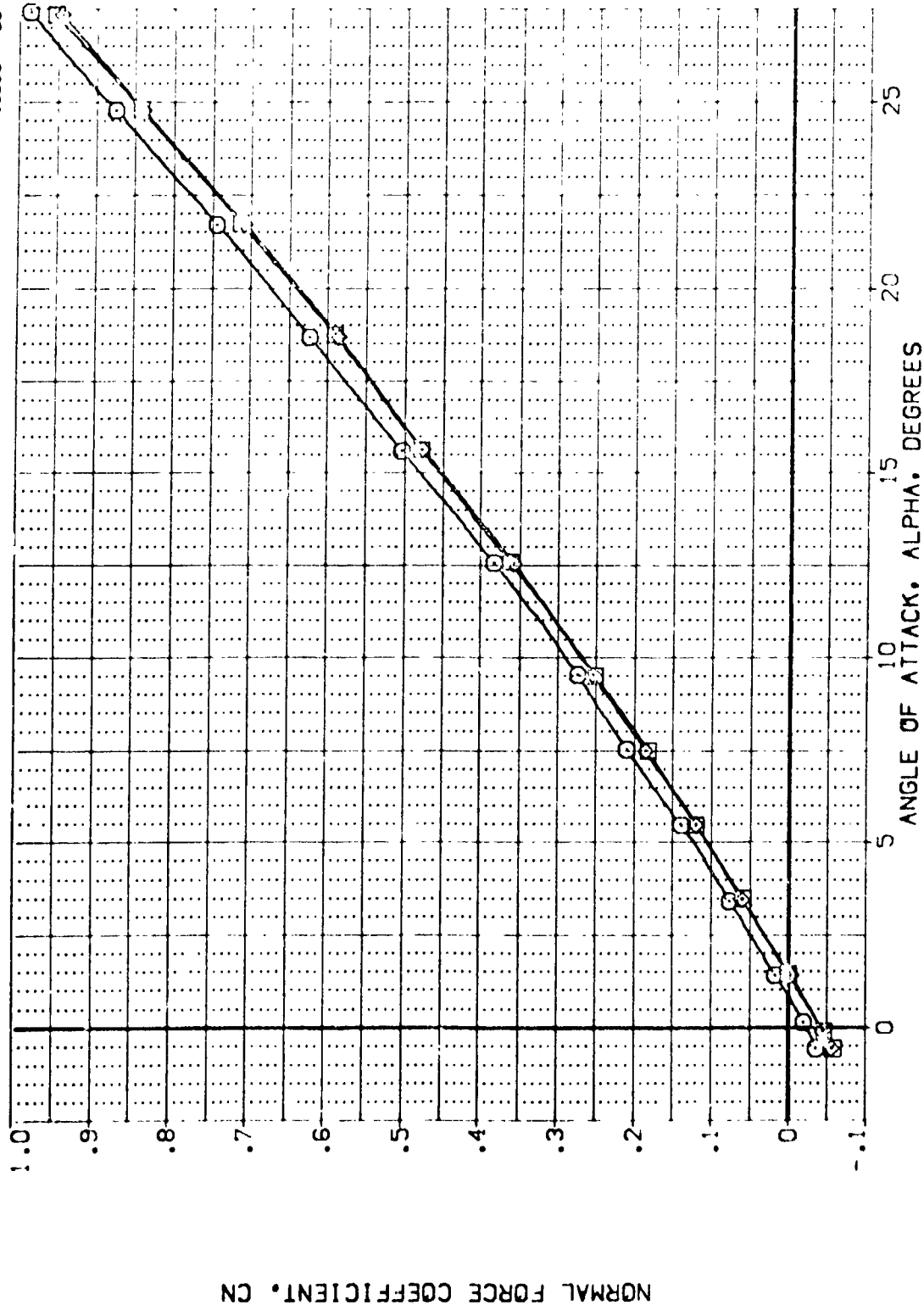


FIG. 8 BODYFLAP EFFECTS

(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOORX	REFERENCE INFORMATION
(*)ELOC(0)	ARC 87-747 DAS3C B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210 SC.FT.
(*)ELOC(6)	ARC 87-747 DAS3C B C M F VI V	.000	.000	.000	55.000	LREF 14.2440
(*)ELOC(1)	ARC 87-747 DAS3C B C M F VI V	.000	.000	-11.700	55.000	BREF 28.1004
						XREF 32.5010
						YREF .0000
						ZREF 11.2500
						SCALE .0300

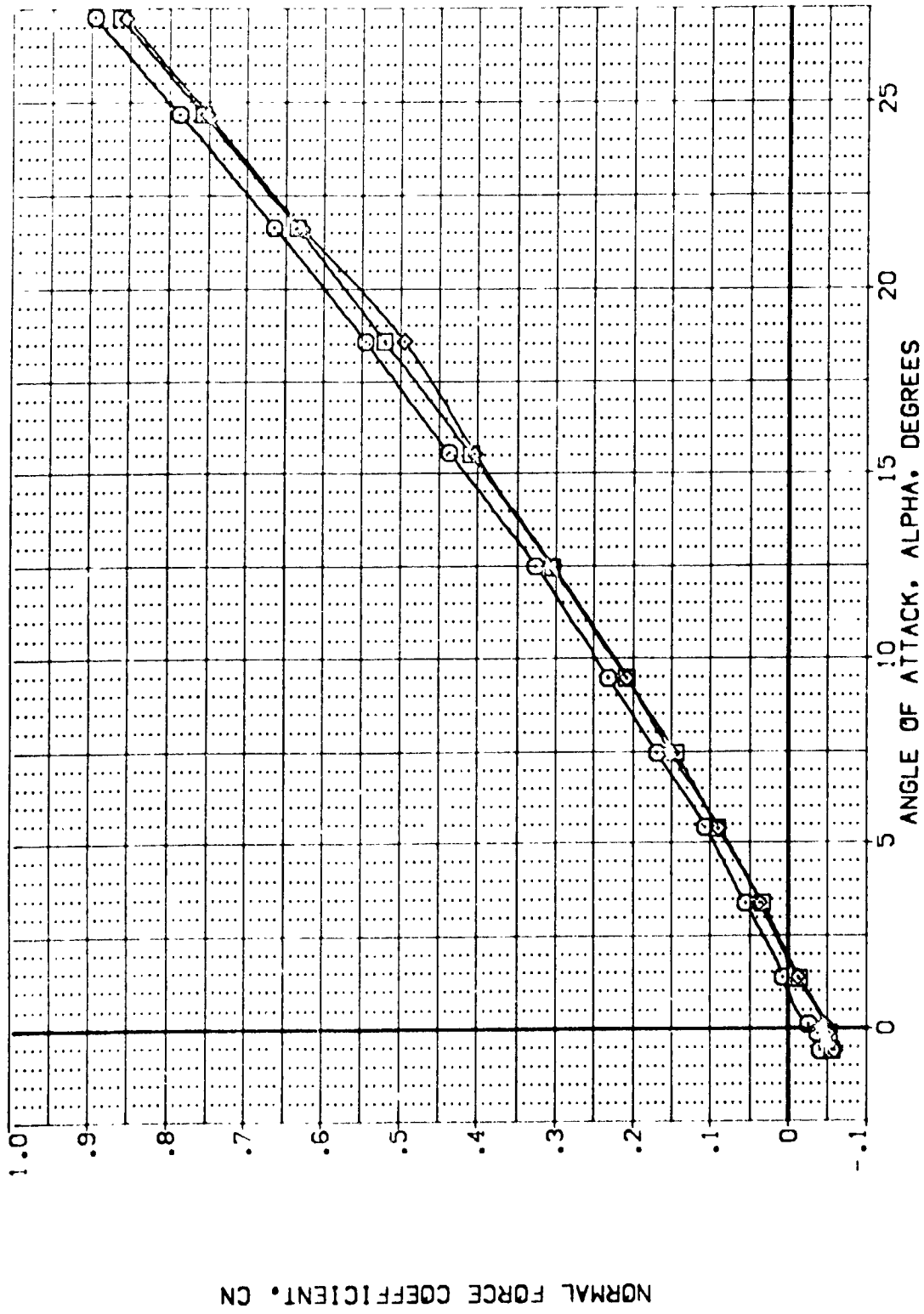


FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BDFLAP	SPODBK	REFERENCE INFORMATION
[TELO10]	ARC 87-747 CLASSIC B C M F VI V	.000	.000	16.300	55.000	SREF 2.4710 SQ.F.T.
[TELO16]	ARC 87-747 CLASSIC B C M F VI V	.000	.000	.000	55.000	LRREF 14.2440
[TELO11]	ARC 87-747 CLASSIC B C M F VI V	.000	.000	-11.700	55.000	BRREF 28.1004
						VRREF 32.3010
						VMREF 11.2300
						SCALE 1.0300

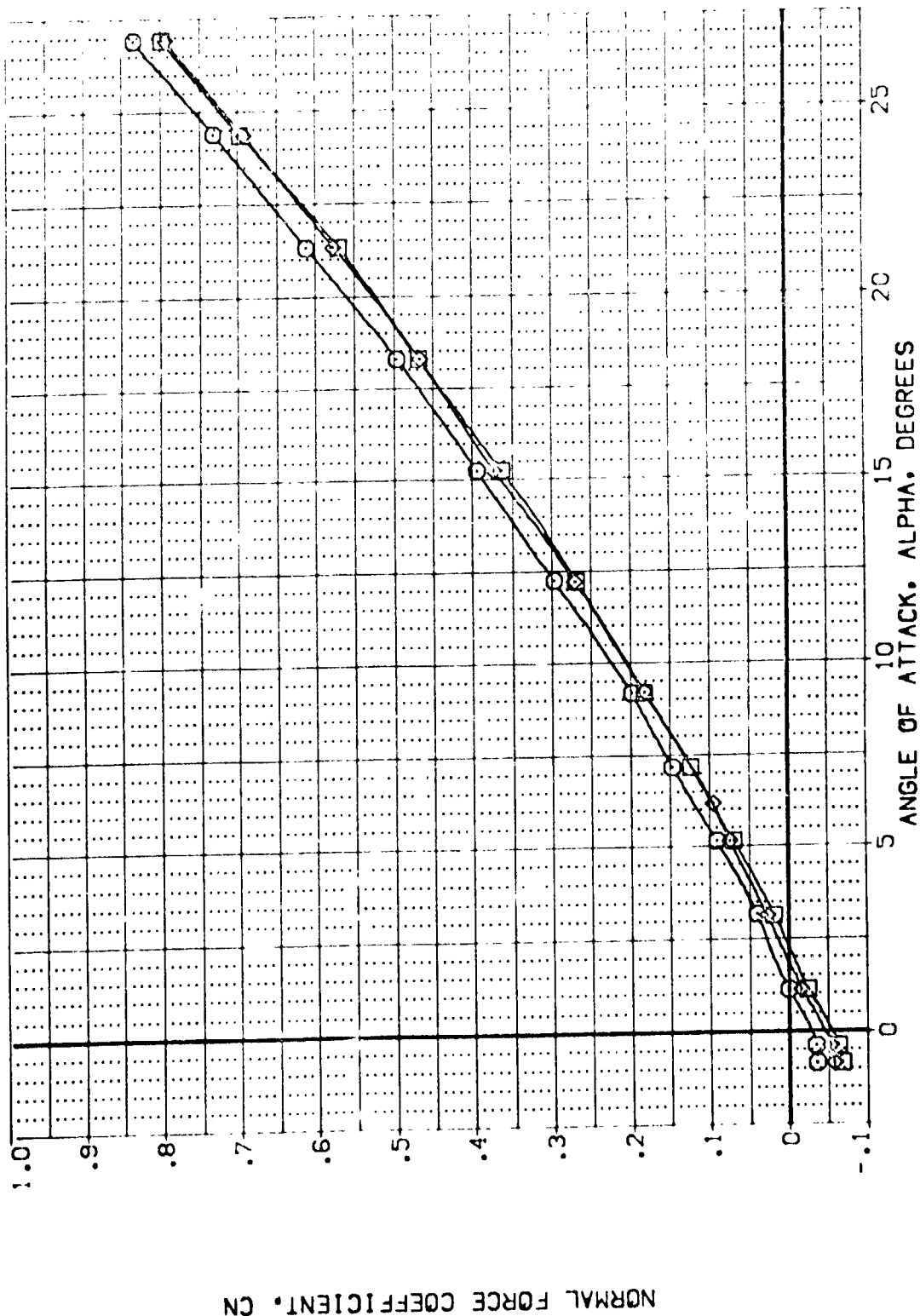


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    ALLRON    BODYLAP    SPODBAK    REFERENCE INFORMATION

[TELO:0]	ARC 87-747 DAS3C B C M F V	.000	.000	16.300	55.000	SREF	2.4210	50.000
[TELO:6]	ARC 87-747 DAS3C B C M F V	.000	.000	.000	55.000	LREF	14.2440	50.000
[TELO:1]	ARC 87-747 DAS3C B C M F V	.000	.000	-11.700	55.000	BREF	28.1004	50.000
						XMRD	32.3010	50.000
						YMRD	.0000	50.000
						ZMRD	11.2500	50.000
						SCALE	.0300	50.000

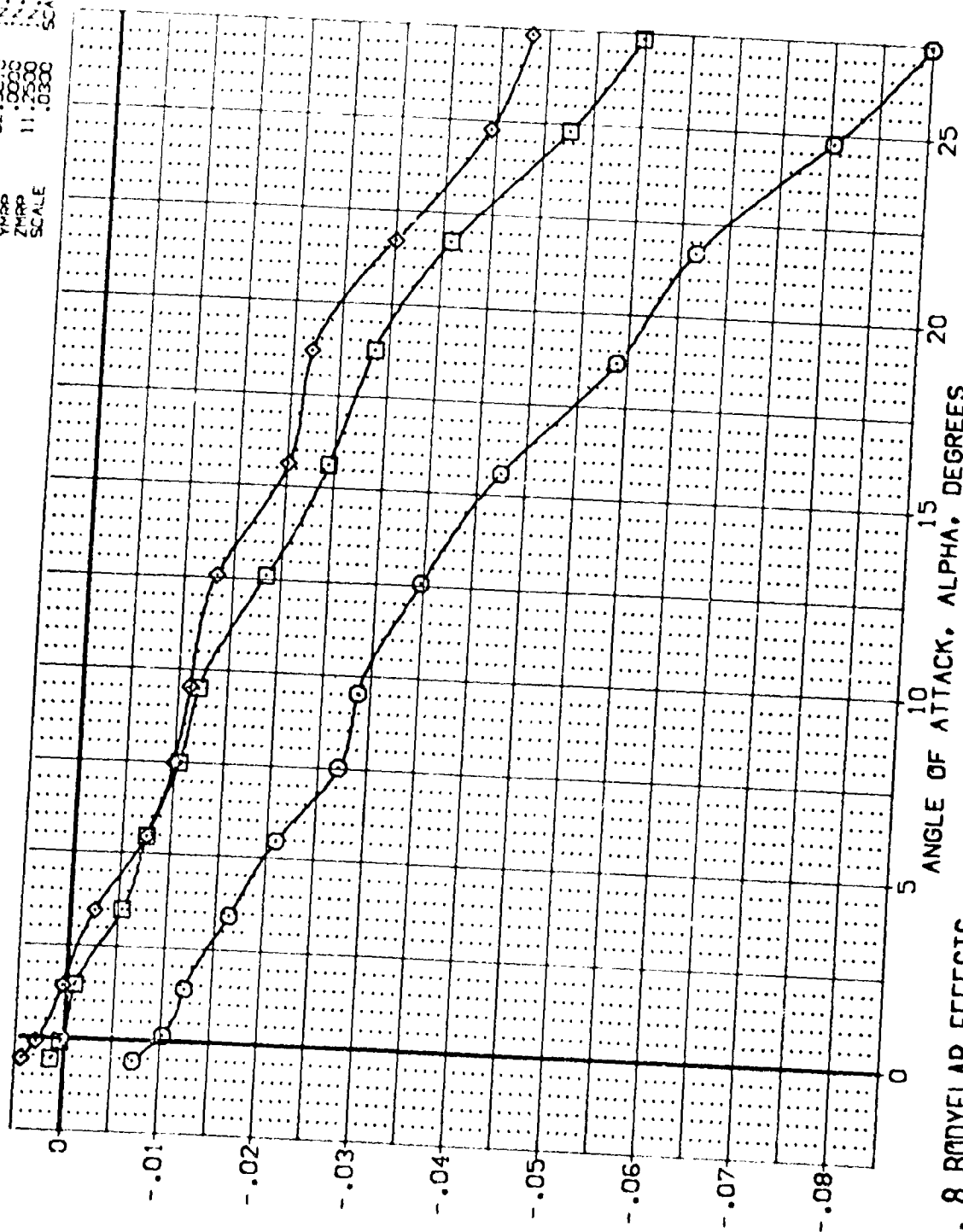
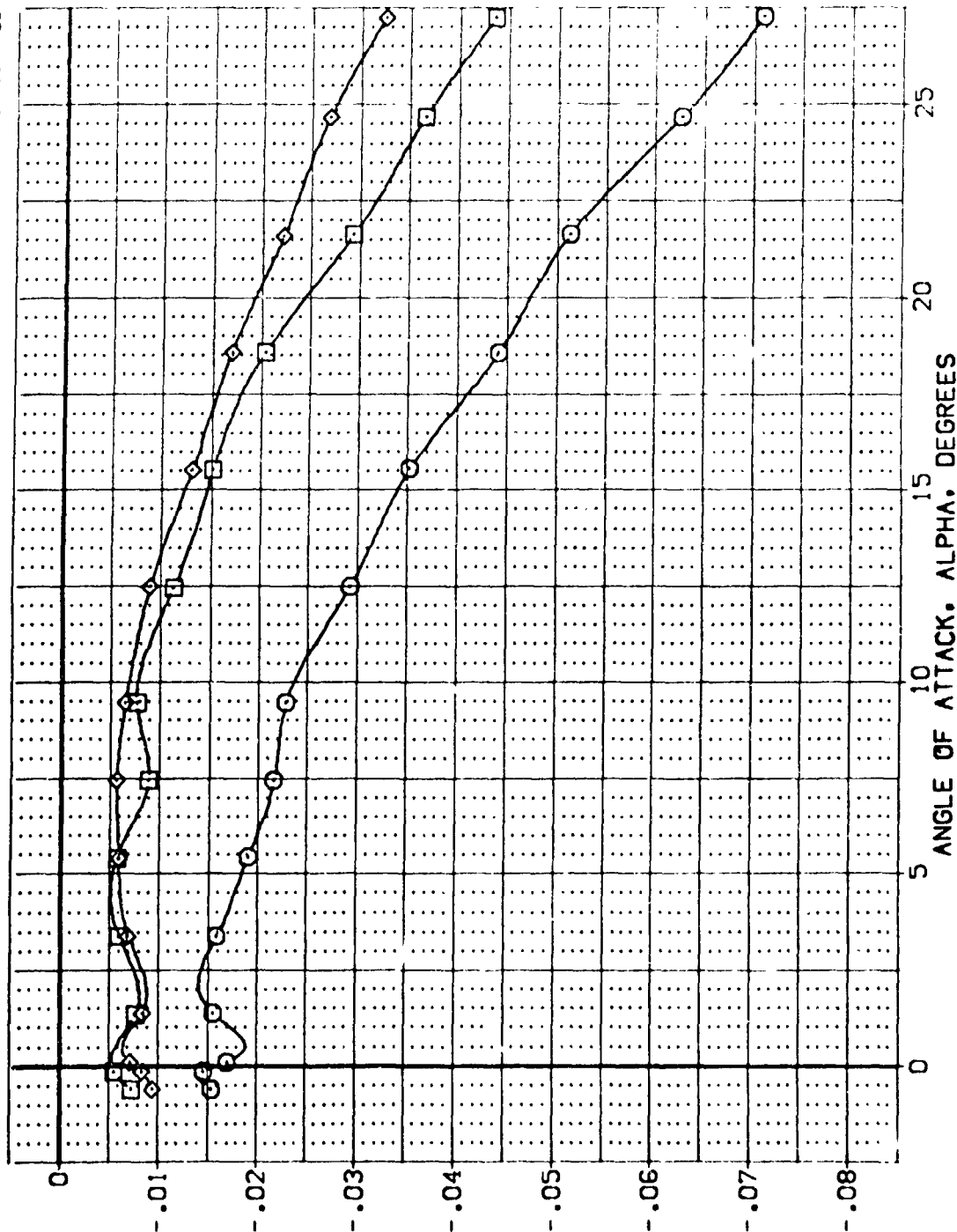


FIG. 8 BODYFLAP EFFECTS  
( $MACH = 2.50$ )

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    AILERON    BODY LAP    SPOILER    REFERENCE INFORMATION

Symbol	Configuration	Elevon	Aileron	Body Lap	Spoiler	SRF	LRF	BRF	YMRP	ZMRP	Scale
[TELO10]	ARC 87-747 BASIC B C M F VI V	.000	.000	16.300	55.000	2.4210	14.2440	28.1004	.0000	.0000	50. FT.
[TELO16]	ARC 87-747 BASIC B C M F VI V	.000	.000	.000	55.000	14.2440	14.2440	28.1004	.0000	.0000	IN.
[TELO11]	ARC 87-747 BASIC B C M F VI V	.000	.000	-11.700	55.000	14.2440	14.2440	28.1004	.0000	.0000	IN.



PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFW

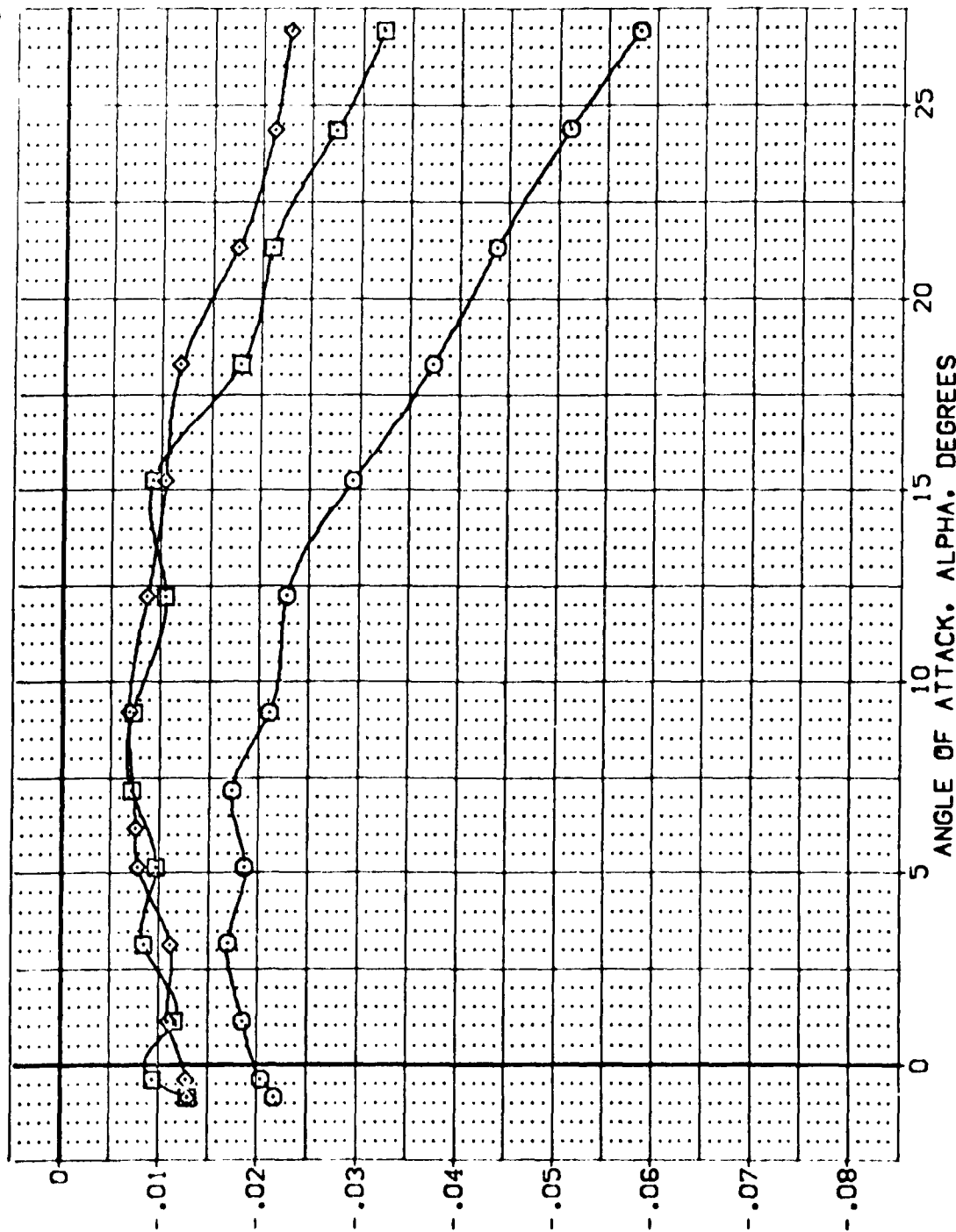
FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    AIRLIN    BODYFLAP    SPOORR    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AIRLIN	BODYFLAP	SPOORR	REFERENCE INFORMATION
ARC 87-747	CAS3C B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210
ARC 87-747	CAS3C B C M F VI V	.000	.000	16.300	55.000	UREF 14.2440
ARC 87-747	CAS3C B C M F VI V	.000	.000	-11.700	55.000	SREF 28.1004
						YREF 32.3010
						YREF 11.2500
						ZREF 11.2500
						SCALE 1.0000



PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFW

FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOILER	REFERENCE INFORMATION
ARC 87-747	DA53C B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210 50.000
TEL010	ARC 87-747	.000	.000	.000	55.000	LREF 14.2440 50.000
TEL016	ARC 87-747	.000	.000	-11.700	55.000	BREF 28.1004 50.000
TEL011	ARC 87-747	.000	.000			XREF 32.3210 50.000
						YREF 11.2500 50.000
						ZREF 0.0000 50.000
						SCALE 0.0000 50.000

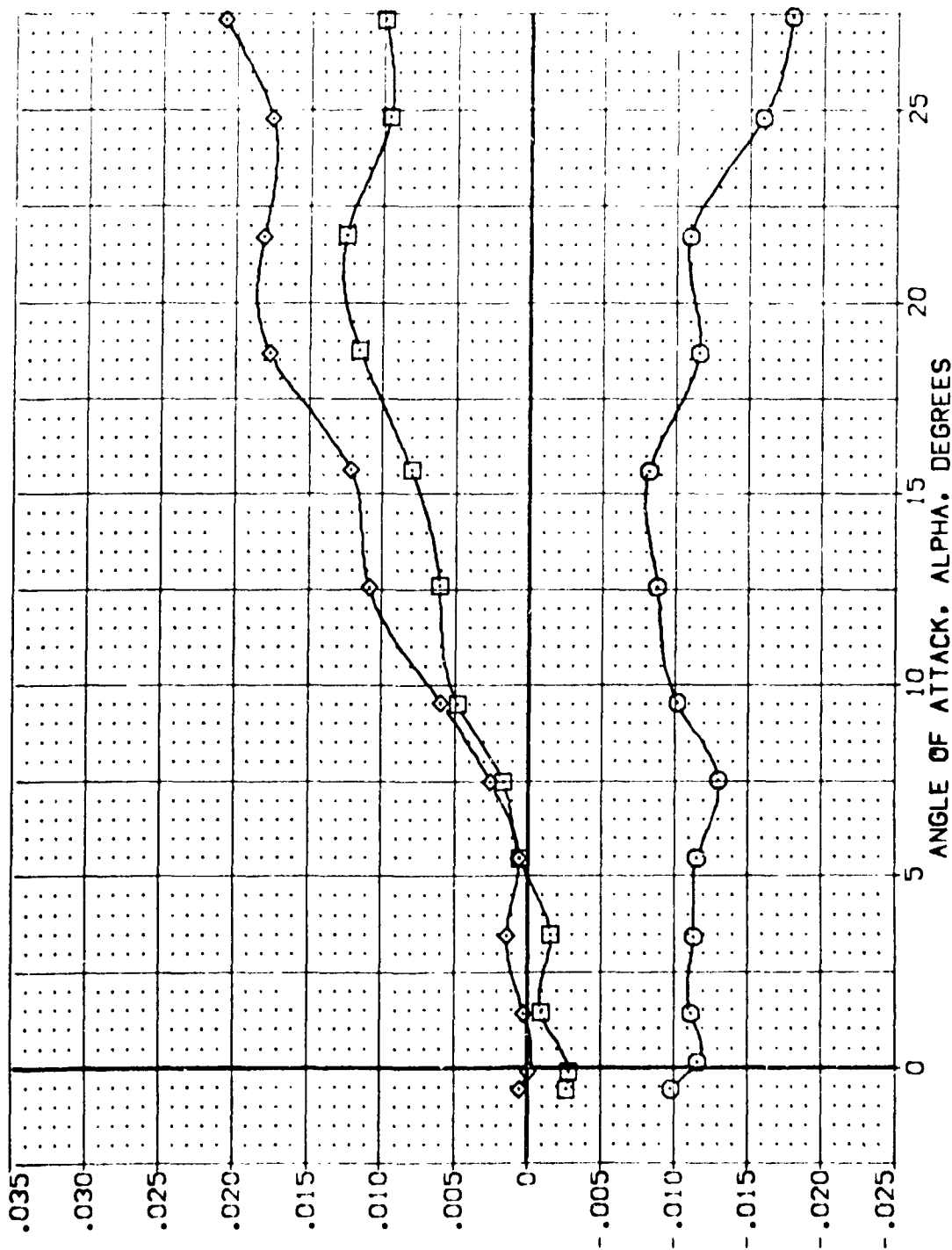


FIG. 8 BODYFLAP EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    ATT. RON    BODY LAP    SPDBRK    REFERENCE INFORMATION

{TEL010}	ARC 87-747 DAS3C B C M F V1	.000	.000	16.300	55.000	SREF 2.4210
{TEL016}	ARC 87-747 DAS3C B C M F V1	.000	.000	16.300	55.000	LREF 14.2440
{TEL011}	ARC 87-747 DAS3C B C M F V1	.000	.000	-11.700	55.000	BREF 28.1004
						XMRP 32.3010
						YMRP .0000
						ZMRP .0000
						SCALE 11.7500
						SCALE .0300

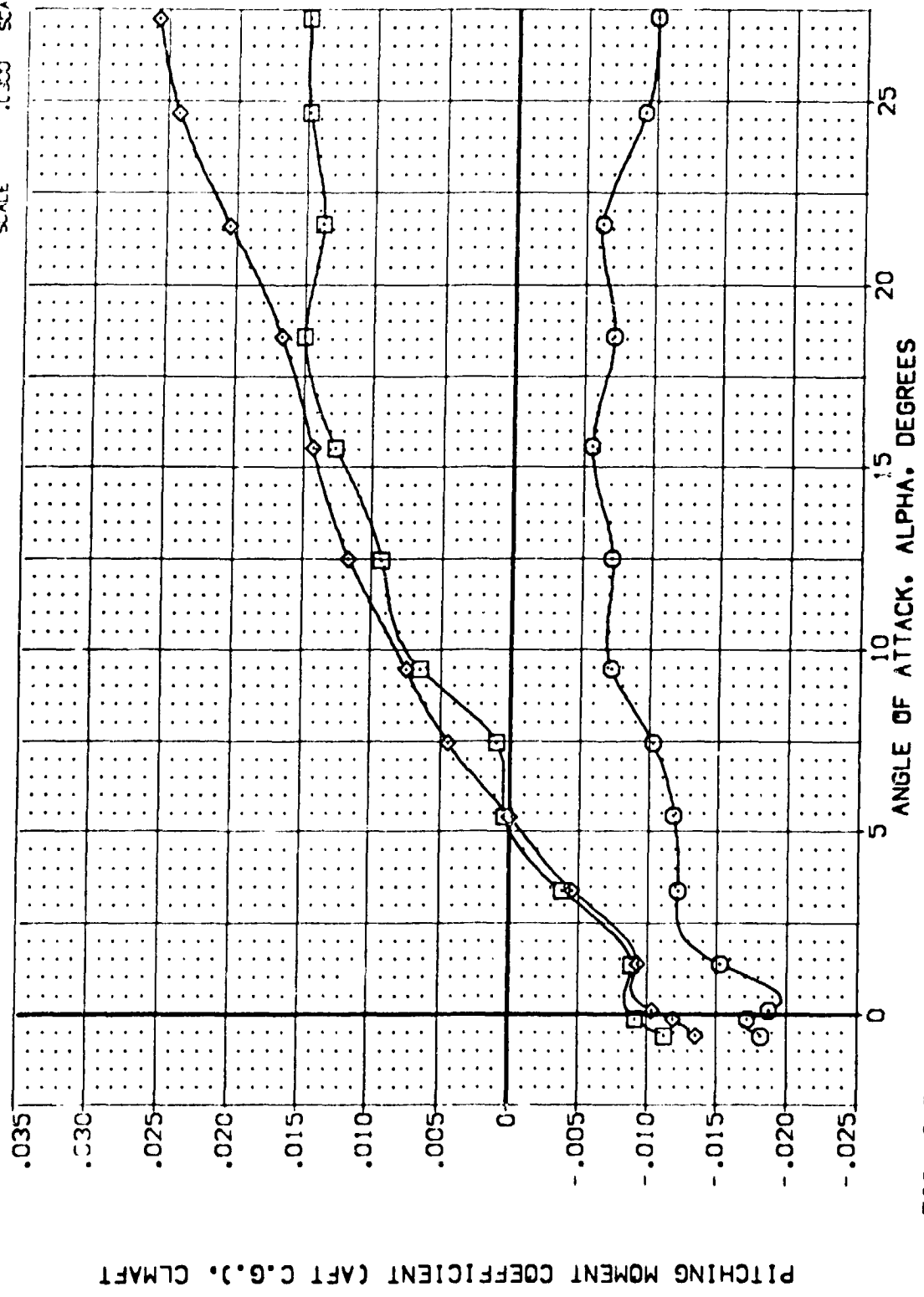


FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPDBRK	REFERENCE INFORMATION
[TELO10]	ARC 87-747 OAS3C B C M F V1	.000	.000	16.300	55.000	SREF 7.4210 SQ.FT.
[TELO16]	ARC 87-7 OAS3C B C M F V1	.000	.000	16.300	55.000	LREF 14.2440
[TELO11]	ARC 87-747 OAS3C B C M F V1	.000	.000	-11.700	55.000	BREF 28.1004
						XMPP 32.3618
						YMPP .0000
						ZMPP .0000
						SCALE 11.2500
						SCALE .0300

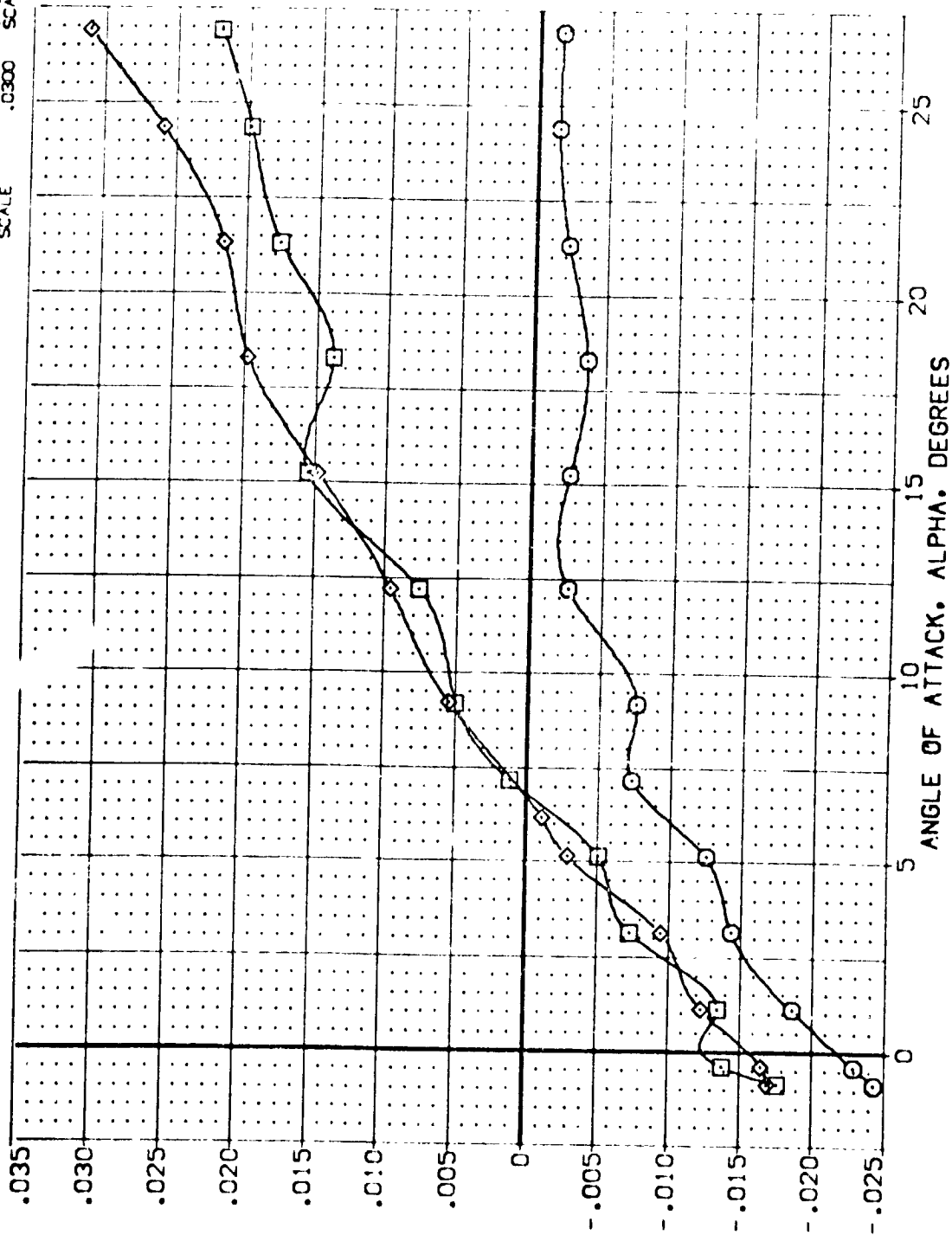


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO. RV/L	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(ELOCIO)	ARC 87-747 CAS3C B C M F VI V	NO. RV/L	.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
(ELOCIO)	ARC 87-747 CAS3C B C M F VI V	NO. RV/L	.000	.000	.000	55.000	LREF 14.2440
(ELOCIO)	ARC 87-747 CAS3C B C M F VI V	NO. RV/L	.000	.000	-11.700	55.000	BREF 28.1004
							YREF 32.3000
							YMRP .0000
							ZMRP .0000
							SCALE 11.7500
							SCALE .0300

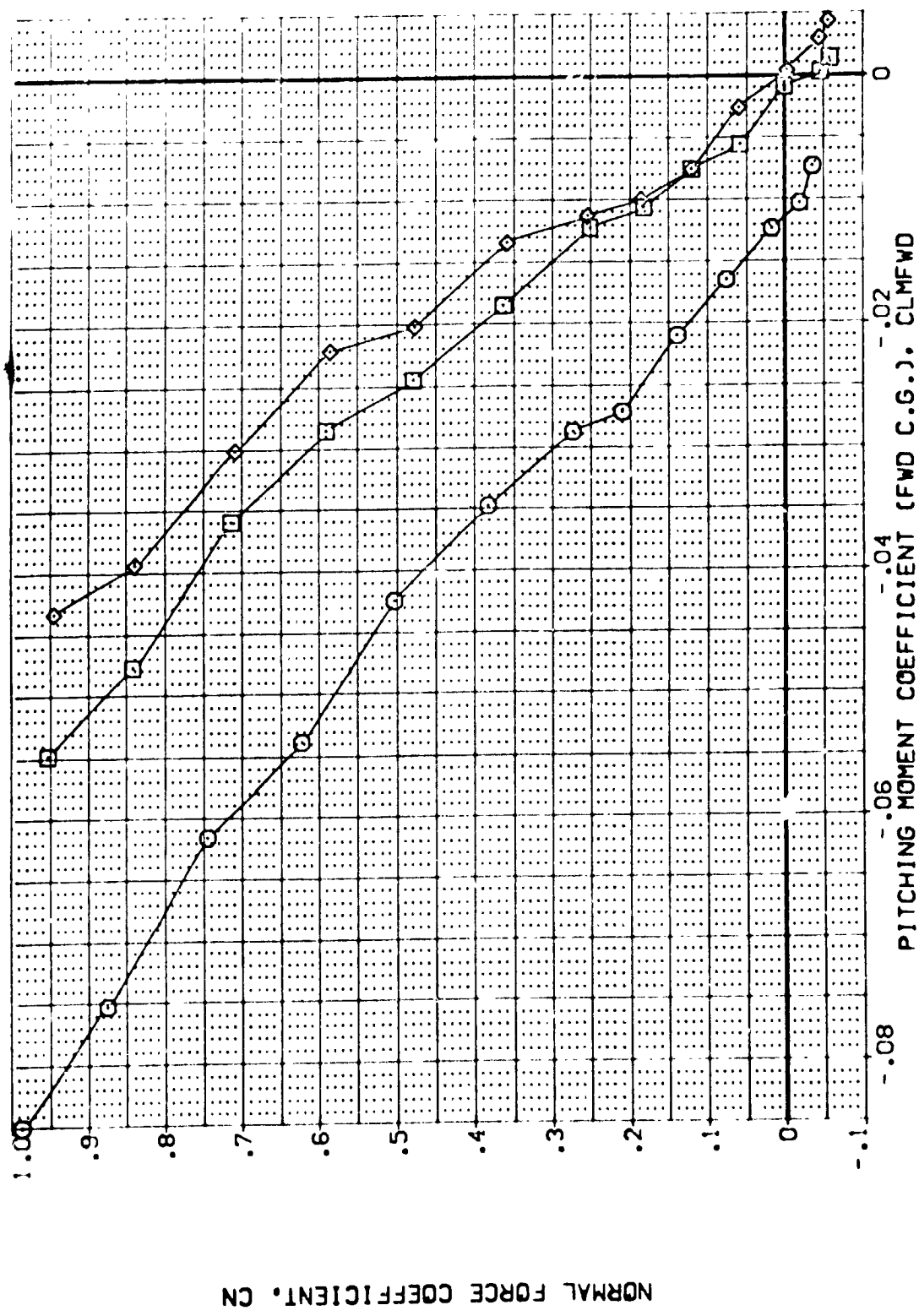


FIG. 8 BODYFLAP EFFECTS

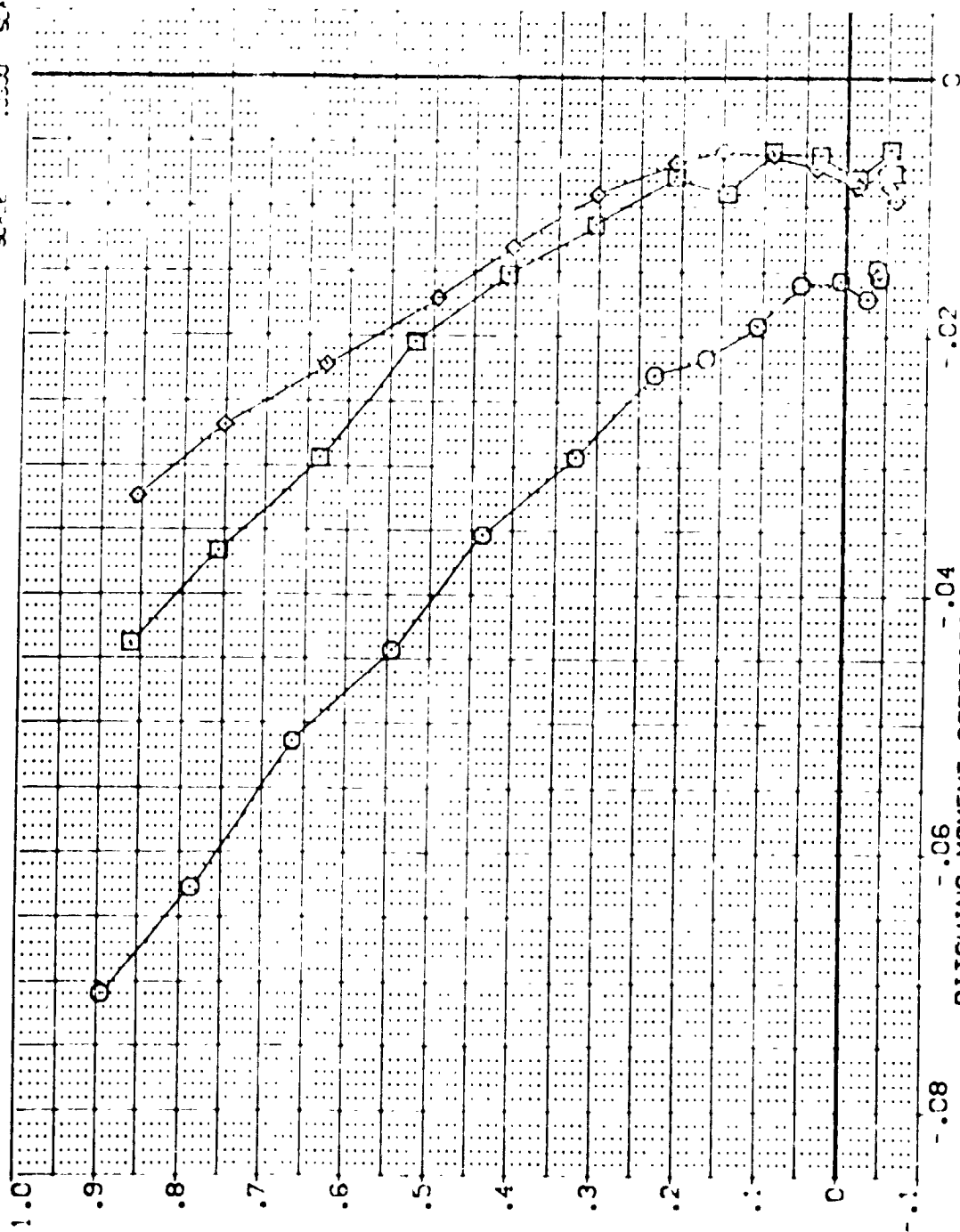
(A) MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

ARC 87-747 BASIC B C M F V V NON: RVUL  
 ARC 87-747 BASIC B C M F V V NON: RVUL  
 ARC 87-747 BASIC B C M F V V NON: RVUL

ELEVON AILRON BDF LAP SPOBRK  
 .000 .000 .000 15.300 55.000  
 .000 .000 .000 .000 55.000  
 .000 .000 .000 -11.700 55.000

REFERENCE INFORMATION  
 SPREF 2.4210 SQ.FT.  
 BRP 14.2440  
 BRP 28.1004  
 BRP 32.3010  
 WING 11.0000  
 SCALE 0.0000



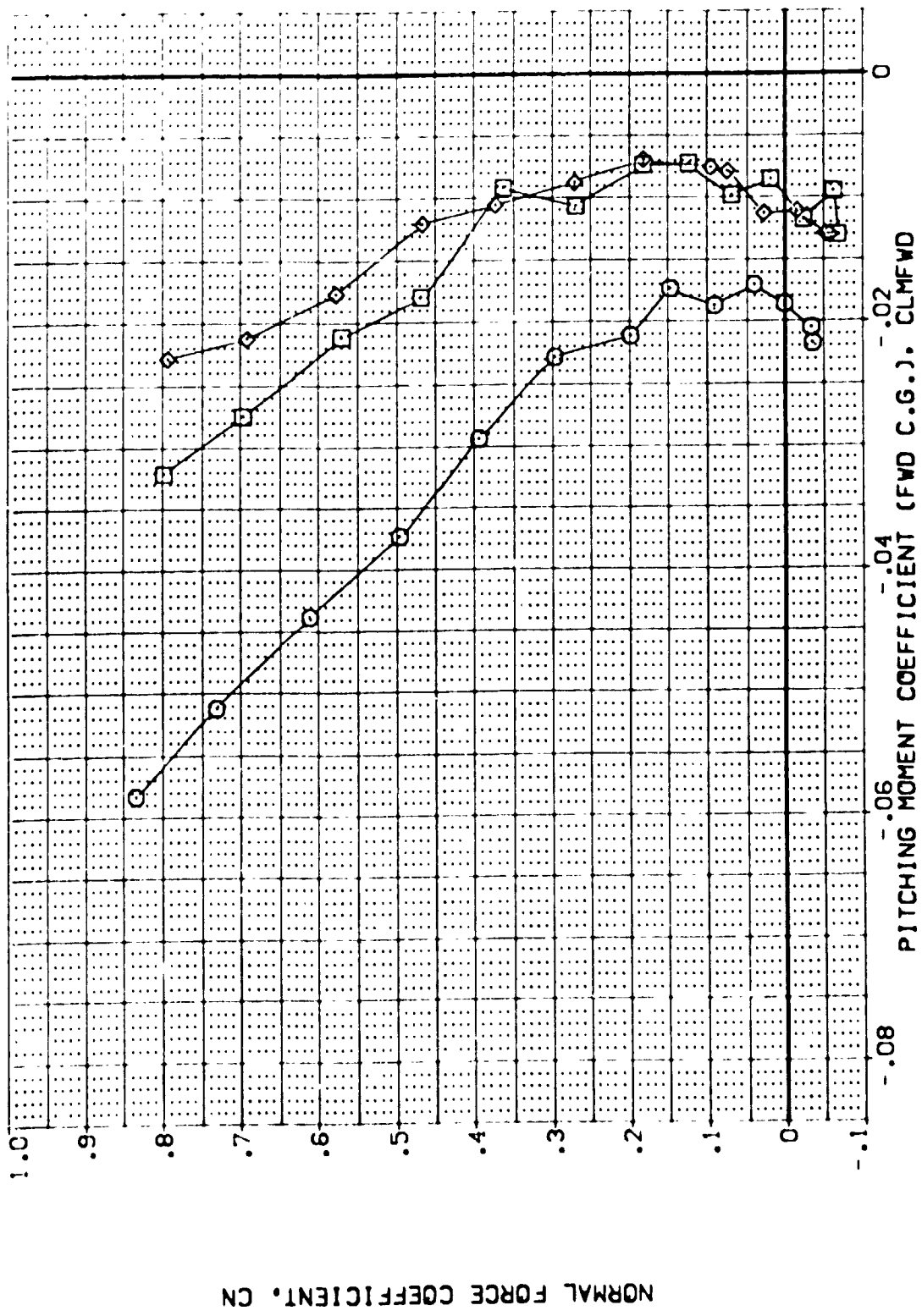
NORMAL FORCE COEFFICIENT, CN

PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFW

FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		AILRON		BOFLAP		SPOBRK		REFERENCE INFORMATION	
ARC 87-747	DA53C	B	C	M	F	V	1	V	NOH	RV/L	NOH	RV/L	SPREF
ARC 87-747	DA53C	B	C	M	F	V	1	V	NOH	RV/L	NOH	RV/L	LRREF
ARC 87-747	DA53C	B	C	M	F	V	1	V	NOH	RV/L	NOH	RV/L	BRREF
													YREF
													ZREF
													SCALE



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOILER	REFERENCE INFORMATION
[1] FLOID	ARC 87-747 BASIC B C M F VI V	.000	.000	15.300	55.000	SREF 2.4210 SQ.FT.
[2] FLOID	ARC 87-747 BASIC B C M F VI V	.000	.000	.000	55.000	LREF 14.2440
[3] FLOID	ARC 87-747 BASIC B C M F VI V	.000	.000	-11.700	55.000	BREF 28.1004
						XREF 32.3010
						YREF 11.3000
						ZREF 11.3000
						SCALE .3300 SCALE

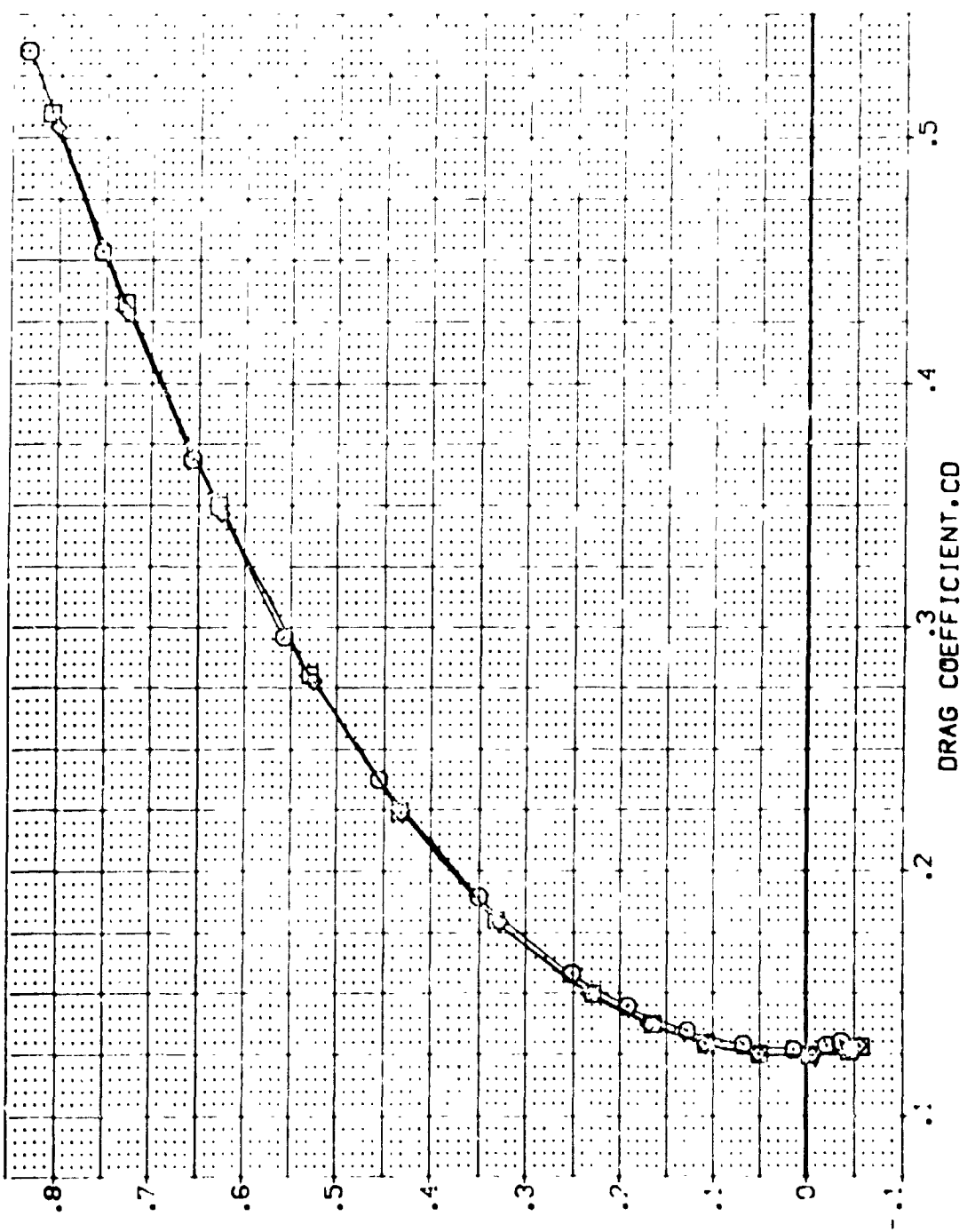


FIG. 8 BODYFLAP EFFECTS

(A) MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AIRLON	BOFLAP	SPDBRK	REFERENCE INFORMATION
[TELO10]	ARC 87-747 OAS3C B C M F VI	.000	.000	16.300	55.000	SREF 7.4210 50.000
[TELO16]	ARC 87-747 OAS3C B C M F VI	.000	.000	.000	55.000	LREF 14.2410 50.000
[TELO11]	ARC 87-747 OAS3C B C M F VI	.000	.000	-11.700	55.000	BREF 28.1000 50.000
						XREF 32.3000 50.000
						YREF 11.2000 50.000
						ZREF 11.2000 50.000
						SCALE .0300

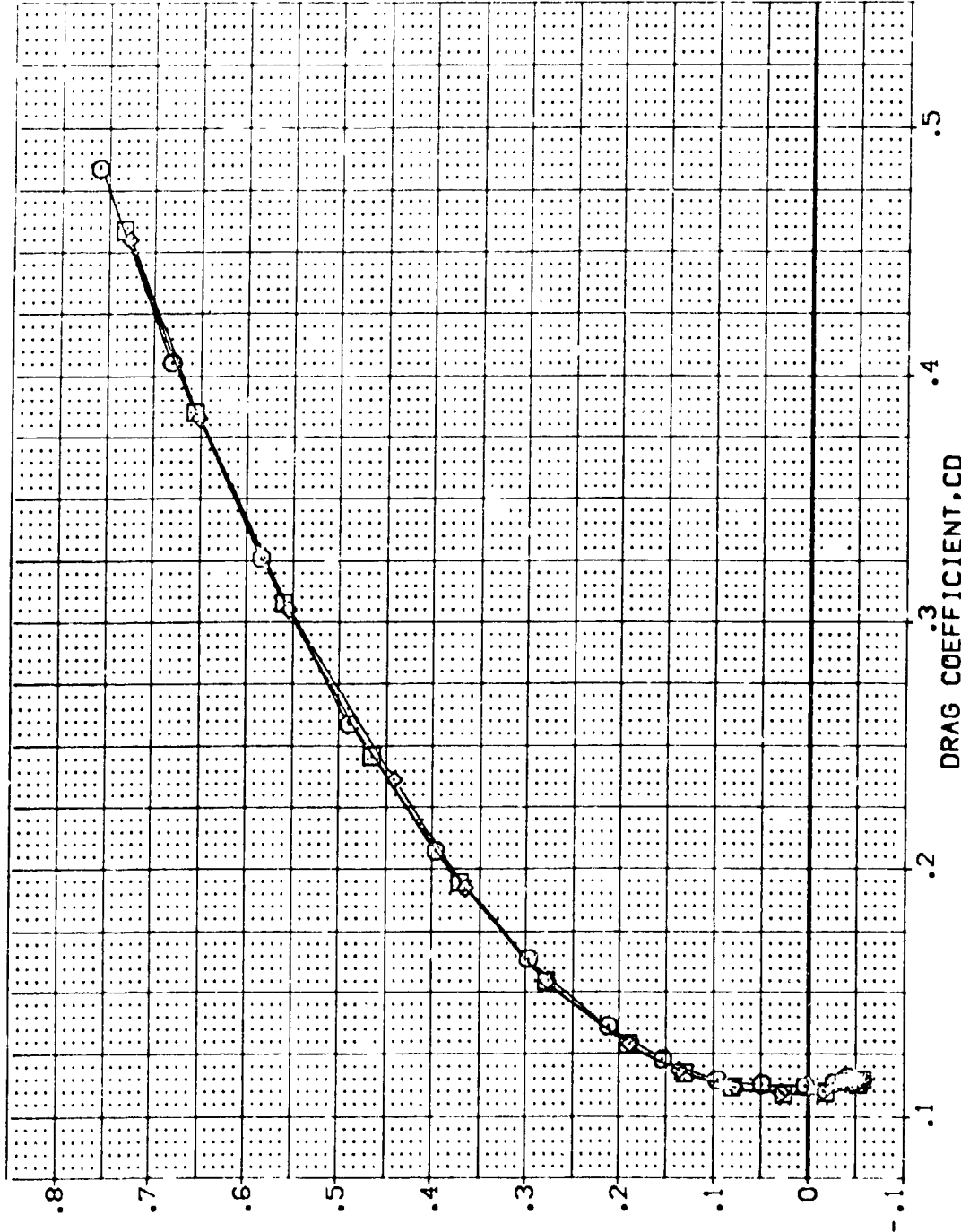


FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVATION    AILTRON    BODY LAP    SPDBRK    REFERENCE INFORMATION

[*ELO:0]	ARC 87-747 QAS3C B C M F V	.000	.000	16.300	55.000	SREF 2.4210
[*ELO:6]	ARC 87-747 QAS3C B C M F V	.000	.000	.000	55.000	LREF 14.2440
[*ELO:11]	ARC 87-747 QAS3C B C M F V	.000	.000	-11.700	55.000	BREF 28.1000
						XREF 32.3010
						YREF 11.0000
						ZREF 11.2500
						SCALE .0300

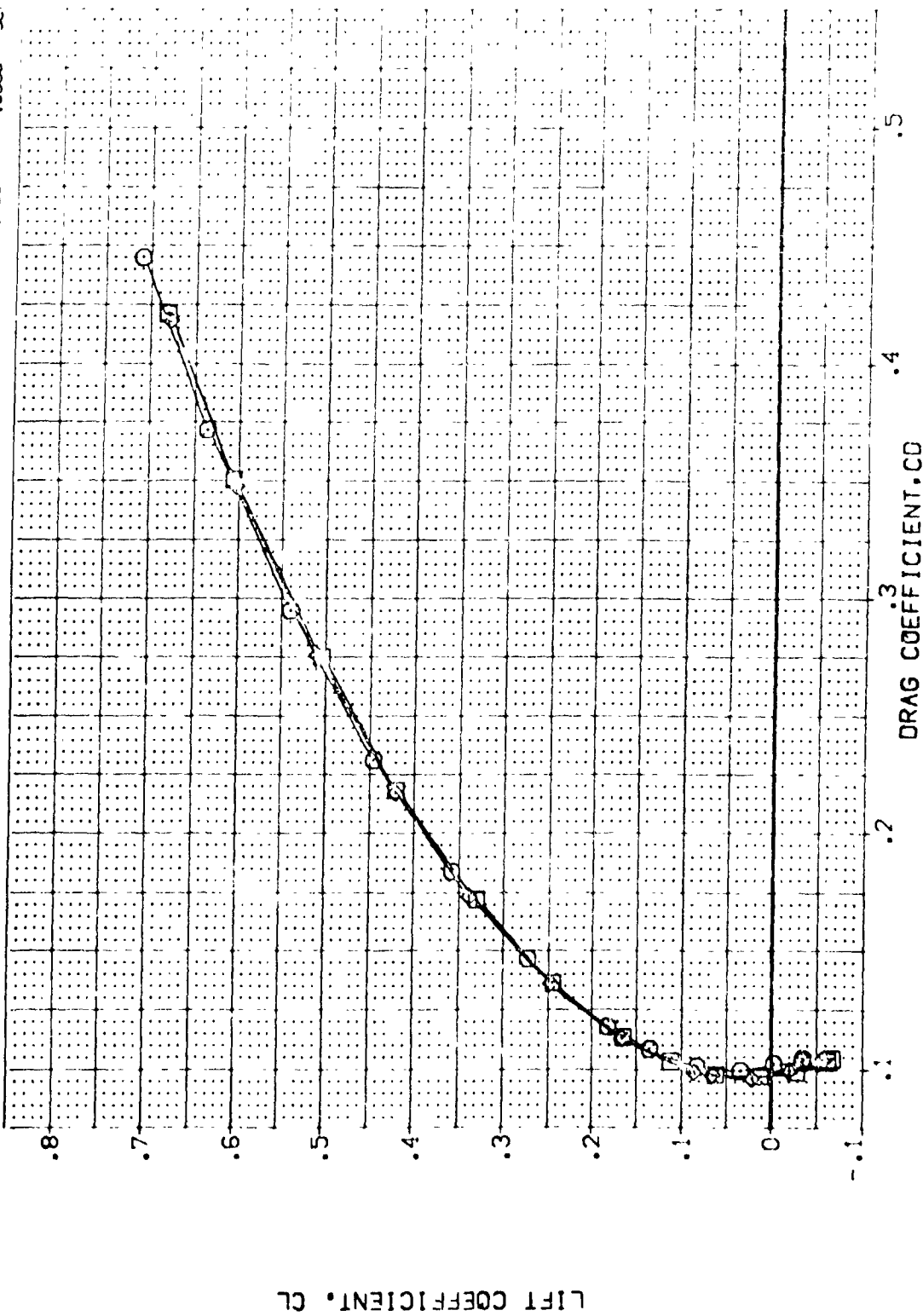


FIG. 8 BODYFLAP EFFECTS

(CJ)MACH = 3.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		Aileron		BODY LAP		SPDRK		REFERENCE INFORMATION	
[TELO:0]	Q	ARC 87-747	0453C B C M F V	.000	.000	.000	.000	16.300	55.000	SREF	2.4710	50.000	
[TELO:1]	Q	ARC 87-747	0453C B C M F V	.000	.000	.000	.000	16.300	55.000	UREF	14.2440	50.000	
[TELO:2]	Q	ARC 87-747	0453C B C M F V	.000	.000	.000	.000	-11.700	55.000	YREF	28.1004	50.000	
										YMRP	32.3010	50.000	
										ZMRP	11.2500	50.000	
										SCALE	.0300	SCALE	

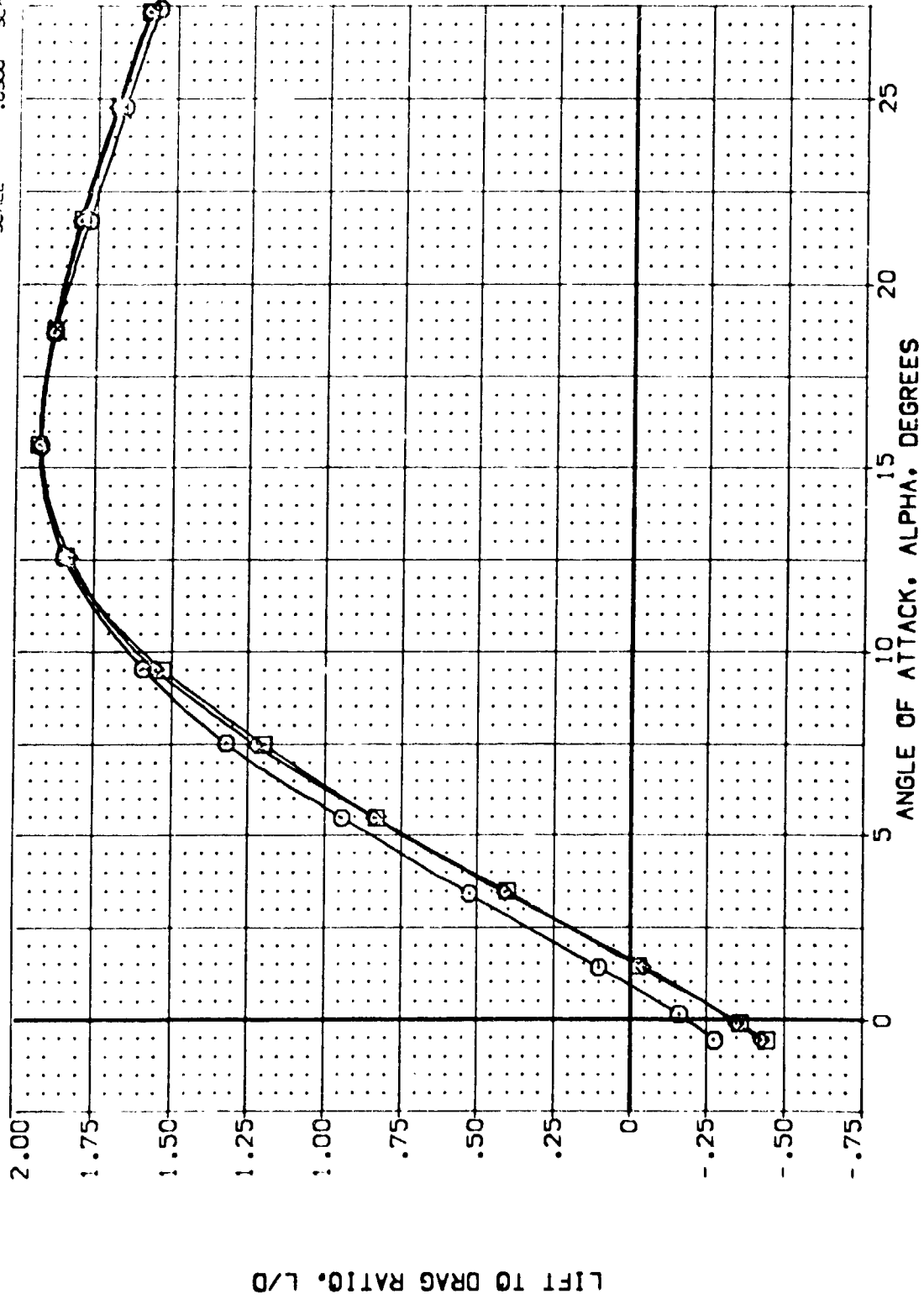


FIG. 8 BODYFLAP EFFECTS

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BODY FLAP	SPD BRK	REFERENCE INFORMATION
[TELO10]	ARC 87-747 OAS3C B C M F V1 V	.000	.000	16.300	55.000	SREF 2.4210 SC. FT.
[TELO16]	ARC 87-747 OAS3C B C M F V1 V	.000	.000	.000	55.000	CREF 14.244C
[TELO11]	ARC 87-747 OAS3C B C M F V1 V	.000	.000	-11.700	55.000	BREF 28.1004
						YMRP 32.3010
						ZMRP .0000
						SCALE 11.2500
						SCALE .0300

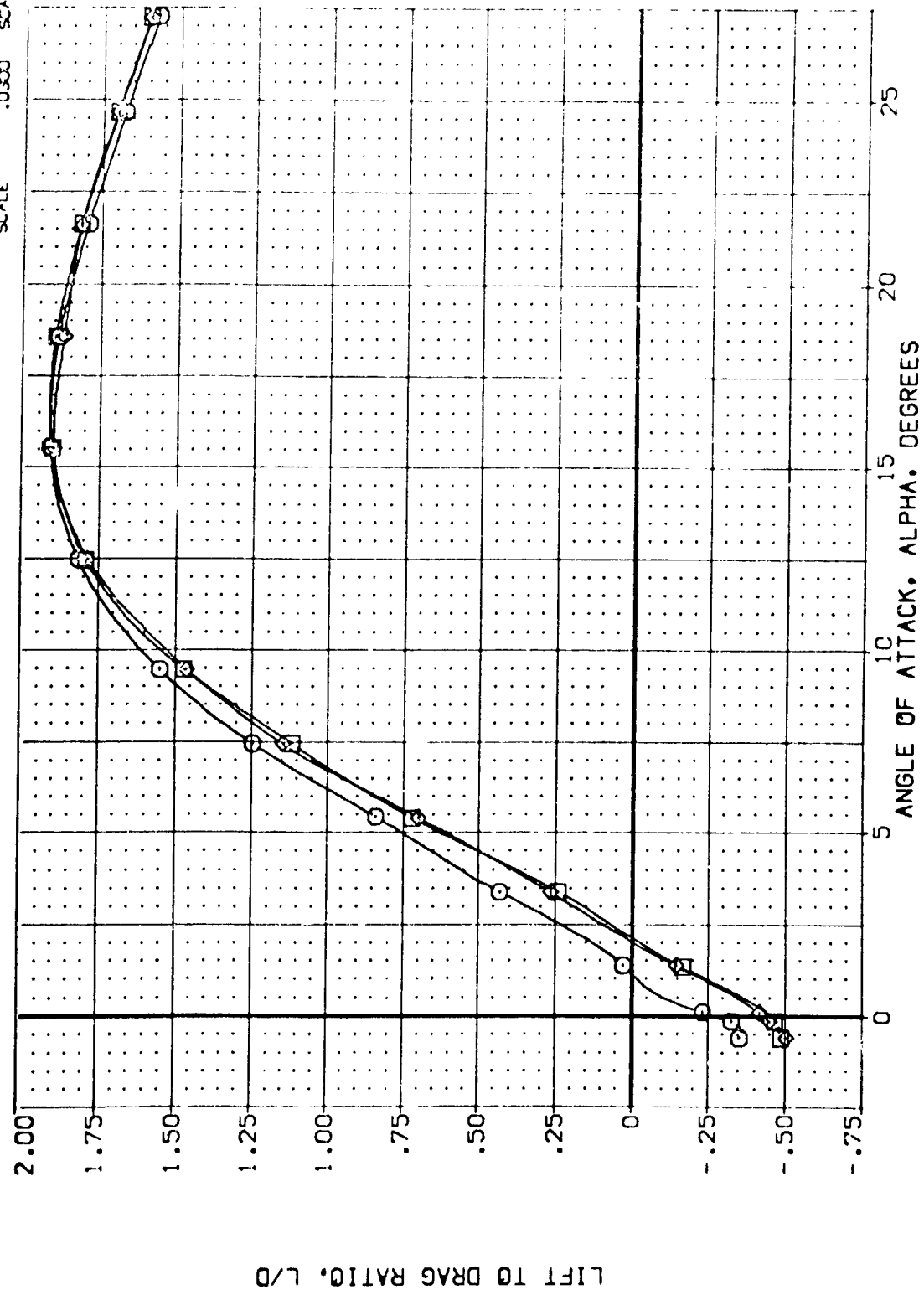


FIG. 8 BODYFLAP EFFECTS

(B) MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ELEVON	AILERON	BOFLAP	SPODBK	REFERENCE INFORMATION
(TELOD:)	ARC 87-747 CAS3C B C M F V	V	RV/L	.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
(TELC:6)	ARC 87-747 CAS3C B C M F V	V	RV/L	.000	.000	.000	55.000	LREF 14.2440
(TELO:1)	ARC 87-747 CAS3C B C M F V	V	RV/L	.000	.000	-11.700	55.000	BREF 28.1004
								XREF 32.3010
								YREF .0000
								ZREF 11.7500
								SCALE 1.0500

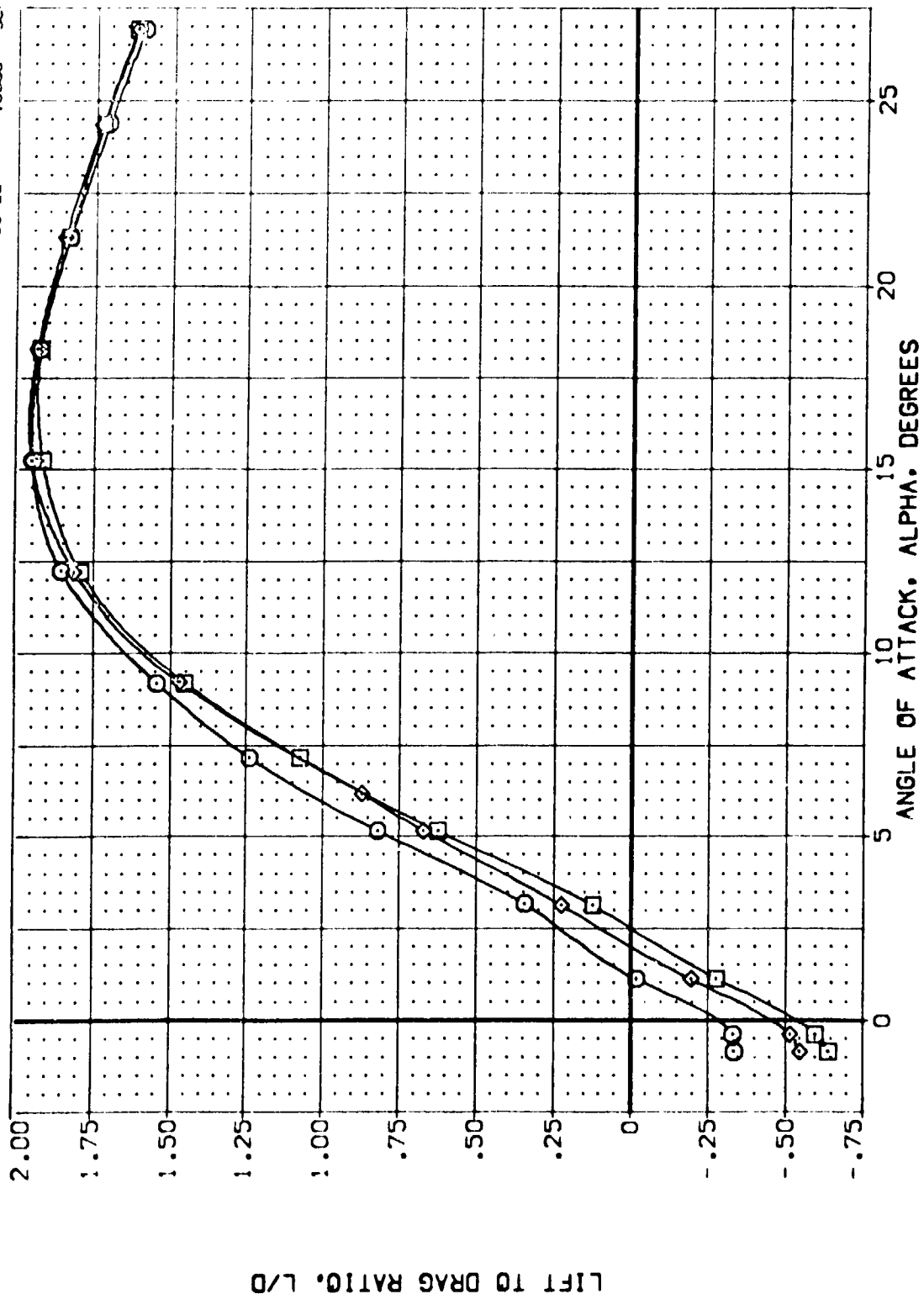


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(AEL010)	ARC 87-747 0A53C B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
(AEL016)	ARC 87-747 0A53C B C M F VI V	.000	.000	.000	55.000	LREF 14.2440
(AEL011)	ARC 87-747 0A53C B C M F VI V	.000	.000	-11.700	55.000	BREF 28.1004
						XMRP 32.3010
						YMRP 11.2500
						ZMRP .0300 SCALE

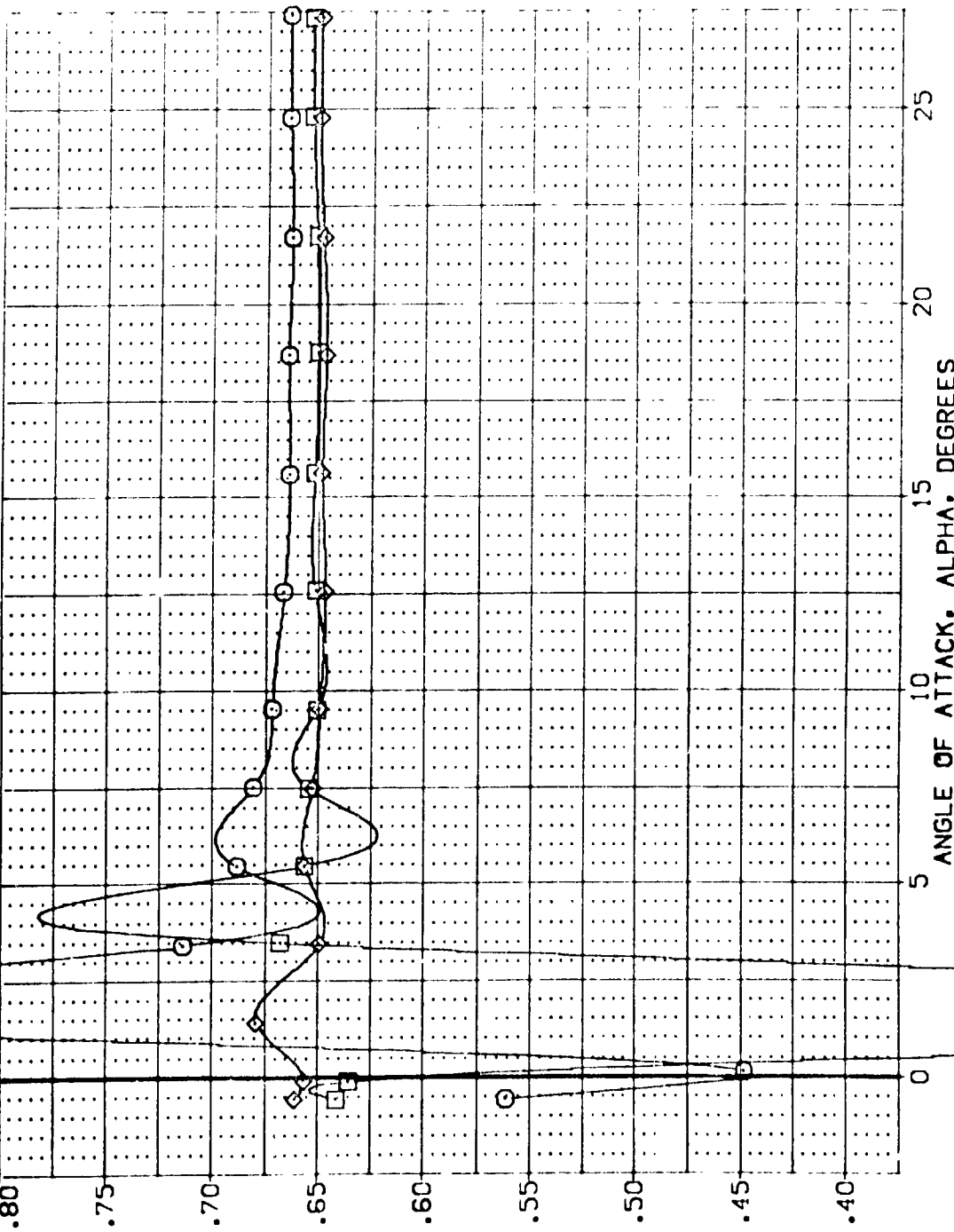


FIG. 8 BODYFLAP EFFECTS

(A)MACH = 2.50

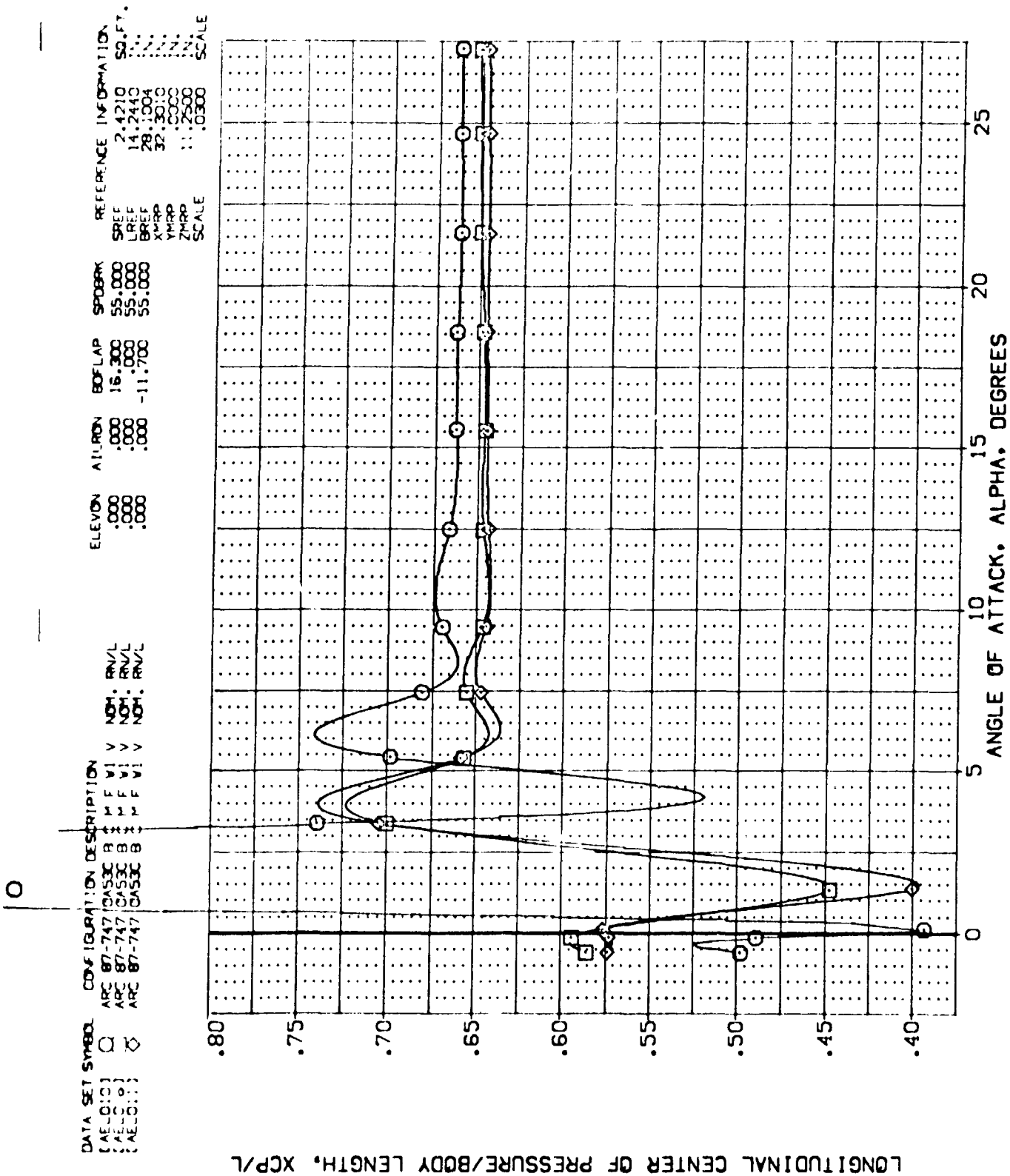


FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVON ALLRON BODY LAP SPOBRK REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ALLRON	BODY LAP	SPOBRK	REFERENCE INFORMATION
(AELO10)	ARC 87-747 BASIC B C M F VI	.000	.000	16.300	55.000	SREF 2.4210 50.000
(AELO16)	ARC 87-747 BASIC B C M F VI	.000	.000	.000	55.000	LREF 14.2440
(AELO11)	ARC 87-747 BASIC B C M F VI	.000	.000	-11.700	55.000	BREF 28.1004
						XMRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

LONGITUDINAL CENTER OF PRESSURE/BODY LENGTH, XCP/L

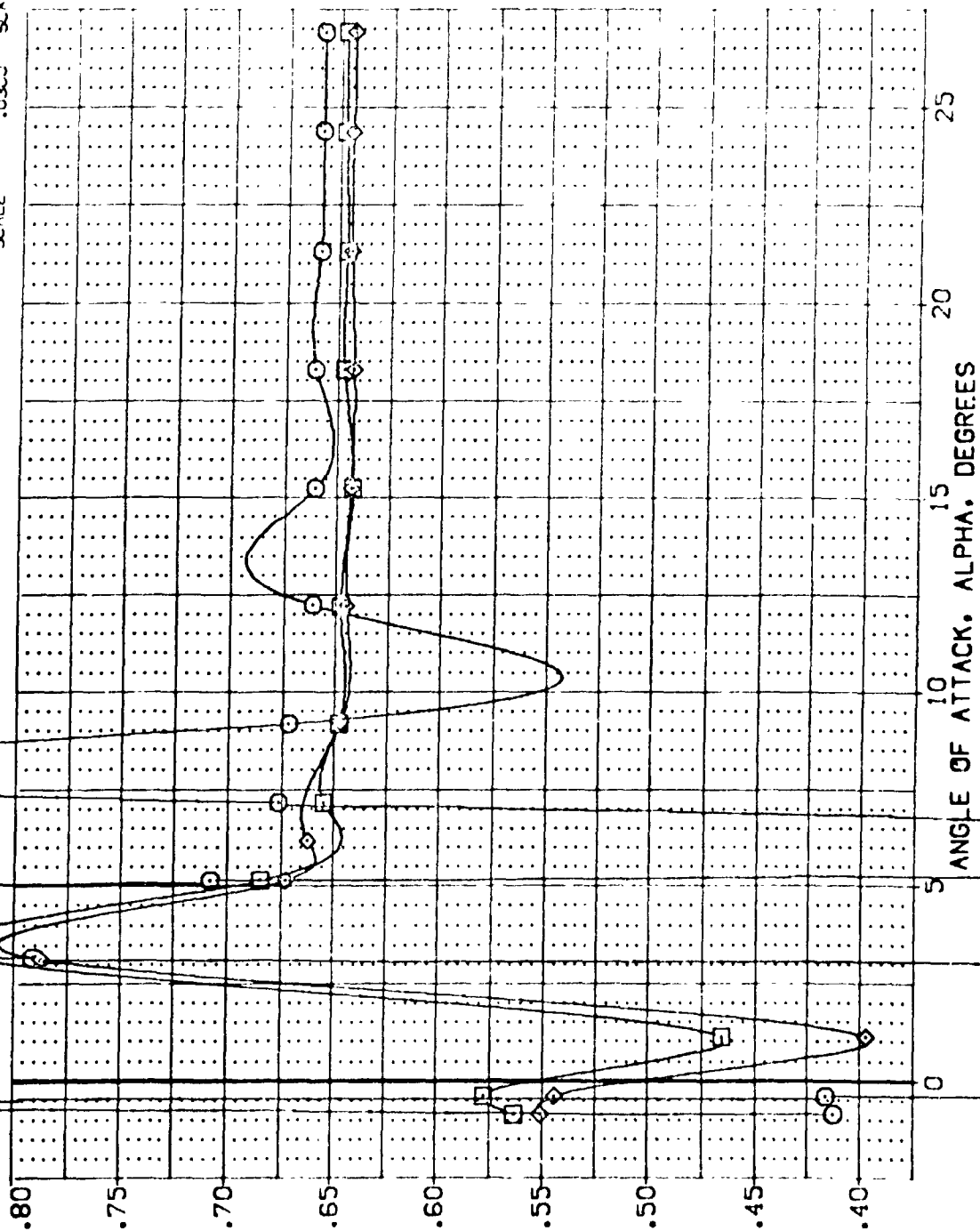


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	AIRLIFT	DEF	SPDRBK	REFERENCE INFORMATION
{ VELOCITY }	ARC 87-747 OAS3C B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210
{ VELOCITY }	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	55.000	LREF 14.2440
						BREF 28.1004
						YREF 32.3010
						YREF 0.0000
						ZREF 11.2500
						SCALE .0300

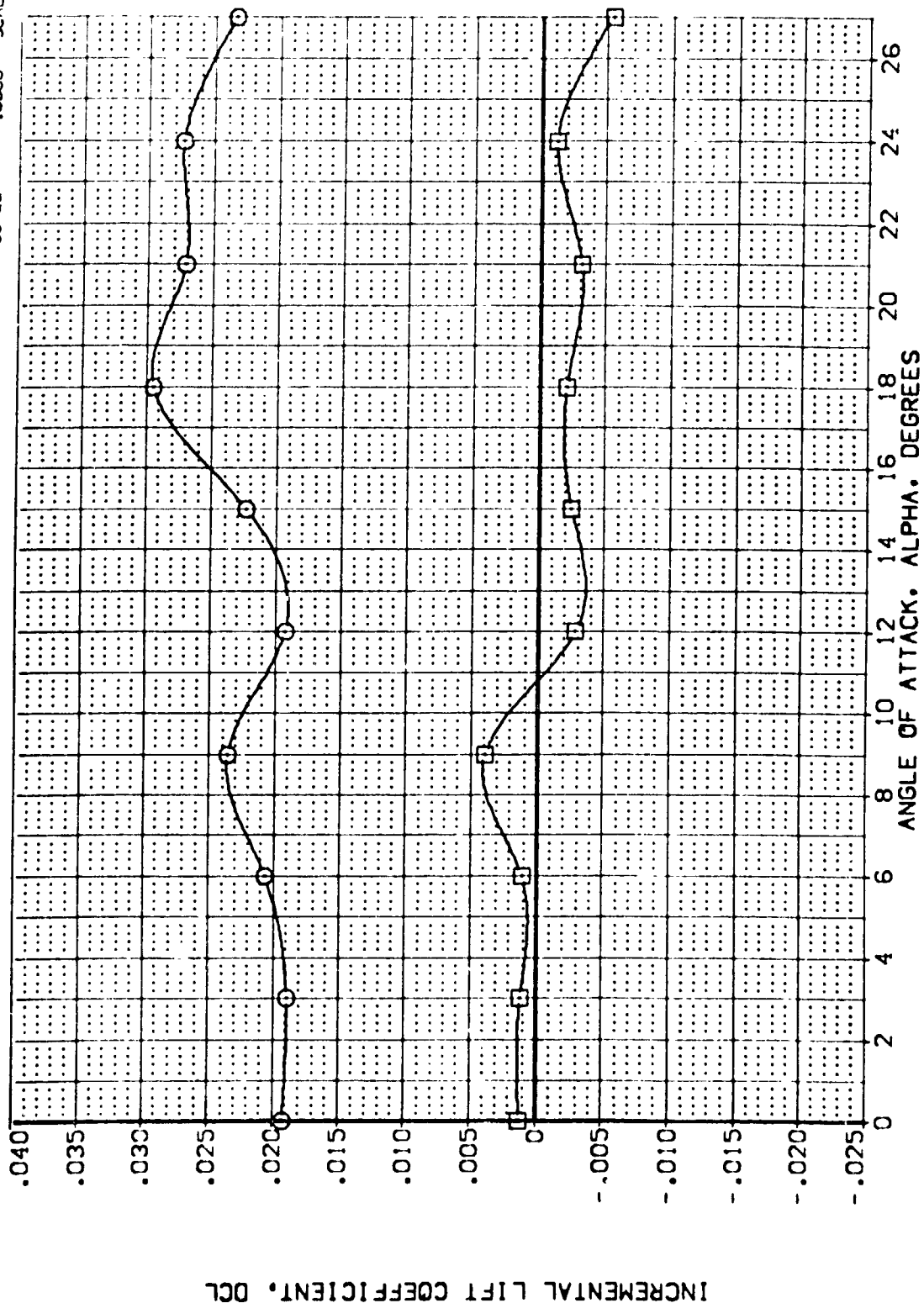


FIG. 8 BODYFLAP EFFECTS

(A)MACH = 2.50

**XEROX**

**(B)MACH = 3.00**

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ATLIRON	DBF	SPOBRK	REFERENCE INFORMATION
(VELO10)	ARC 87-747 CAS3C B C M F V	.000	.000	16.300	55.000	SREF 2.4210 SC.FT.
(VELC11)	ARC 87-747 CAS3C B C M F V	.000	.000	-11.700	55.000	LREF 14.2440
						BREF 28.1004
						XREF 37.3010
						YREF 0.0000
						ZREF 0.0000
						SCALE 11.7500
						SCALE 0.0000

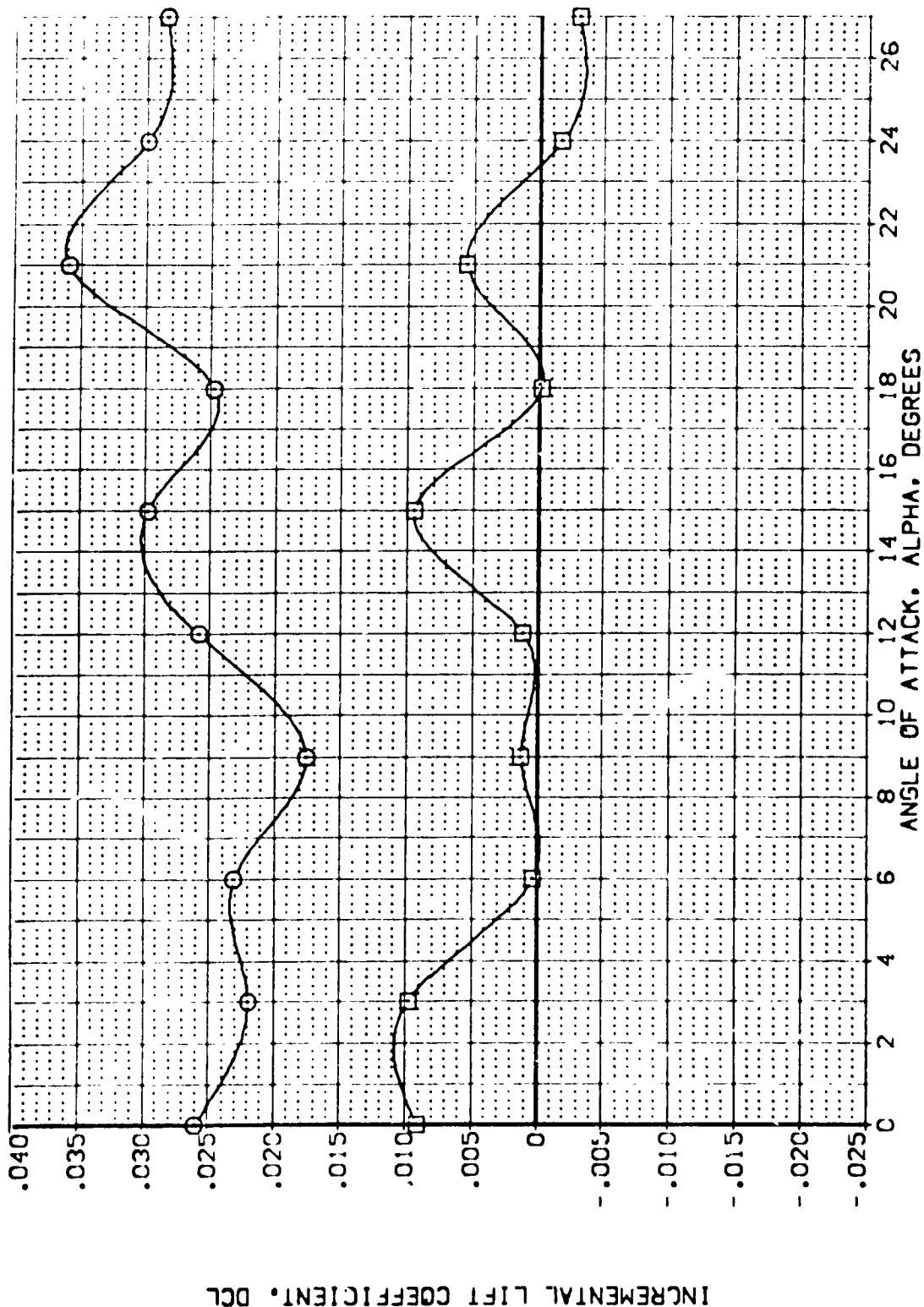


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [A] ARC 87-747 QAS3C B C M F V [Y] NOM. RV/L  
 [B] ARC 87-747 QAS3C B C M F V [Y] NOM. RV/L

ELEVATION ALLRON DEF SPOBOK  
 .000 .000 55.000  
 .000 .000 55.000  
 REFERENCE INFORMATION:  
 SREF 2.4210 SCALE  
 DREF 14.2440 SCALE  
 DREF 26.1004 SCALE  
 DREF 31.1000 SCALE  
 DREF 11.1000 SCALE

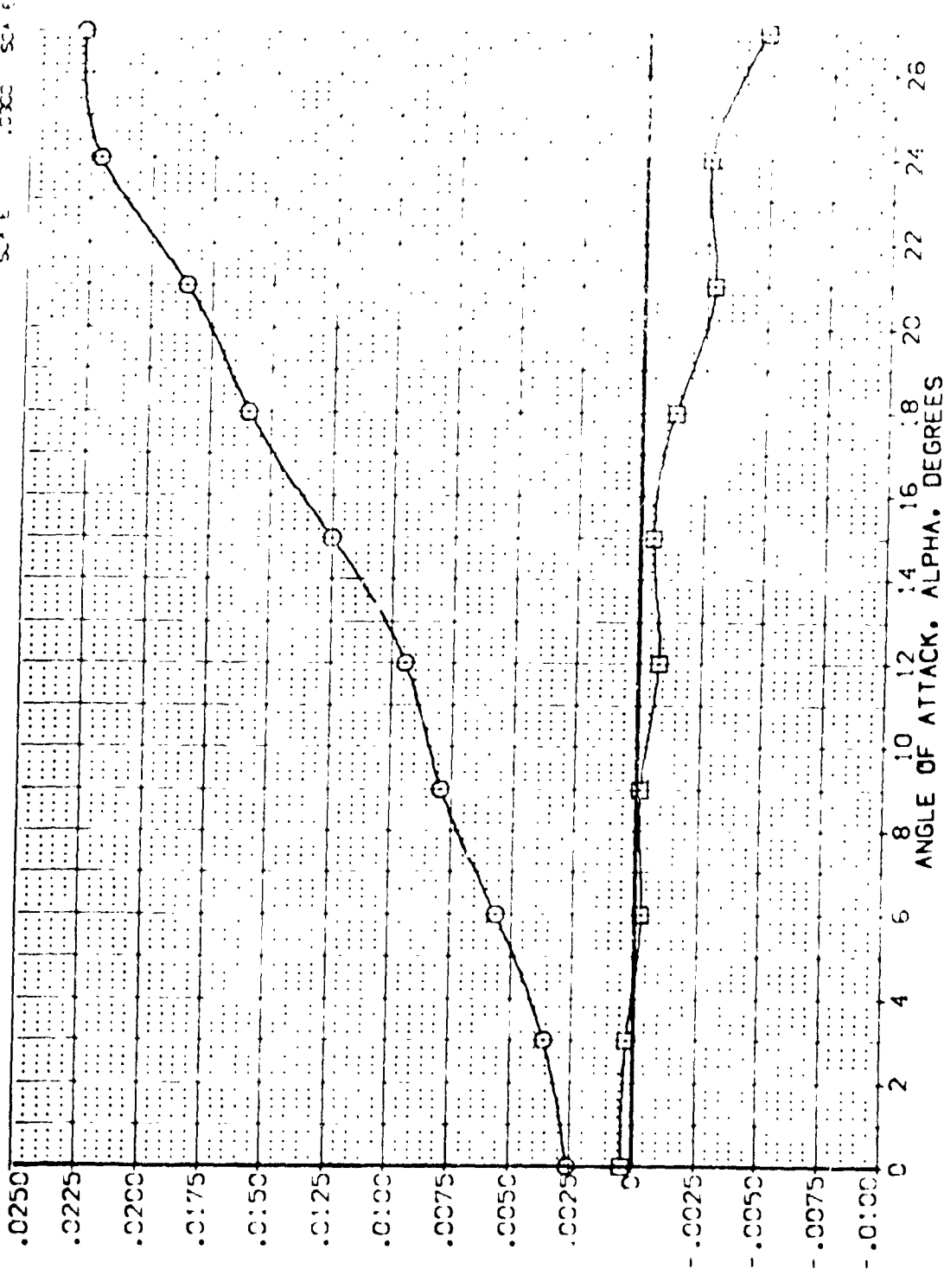


FIG. 8 BODYFLAP EFFECTS  
 (A) VAC = 2.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION

{VELO10} [ ] ARC 87-747 CASEC B C M F VI V NOT: RVAL

{VELO11} [ ] ARC 87-747 CASEC B C M F VI V NOT: RVAL

ELEVATION AIRLIFT DBF SPEED SP03PM

.000 .000 .000 55.000 55.000

.000 .000 .000 55.000 55.000

REFERENCE INFORMATION:

SPEED 2.4210

LIFT 14.2440

DRAG 28.1004

YMG0 32.3010

ZMG0 11.7500

SCALE 1.0000

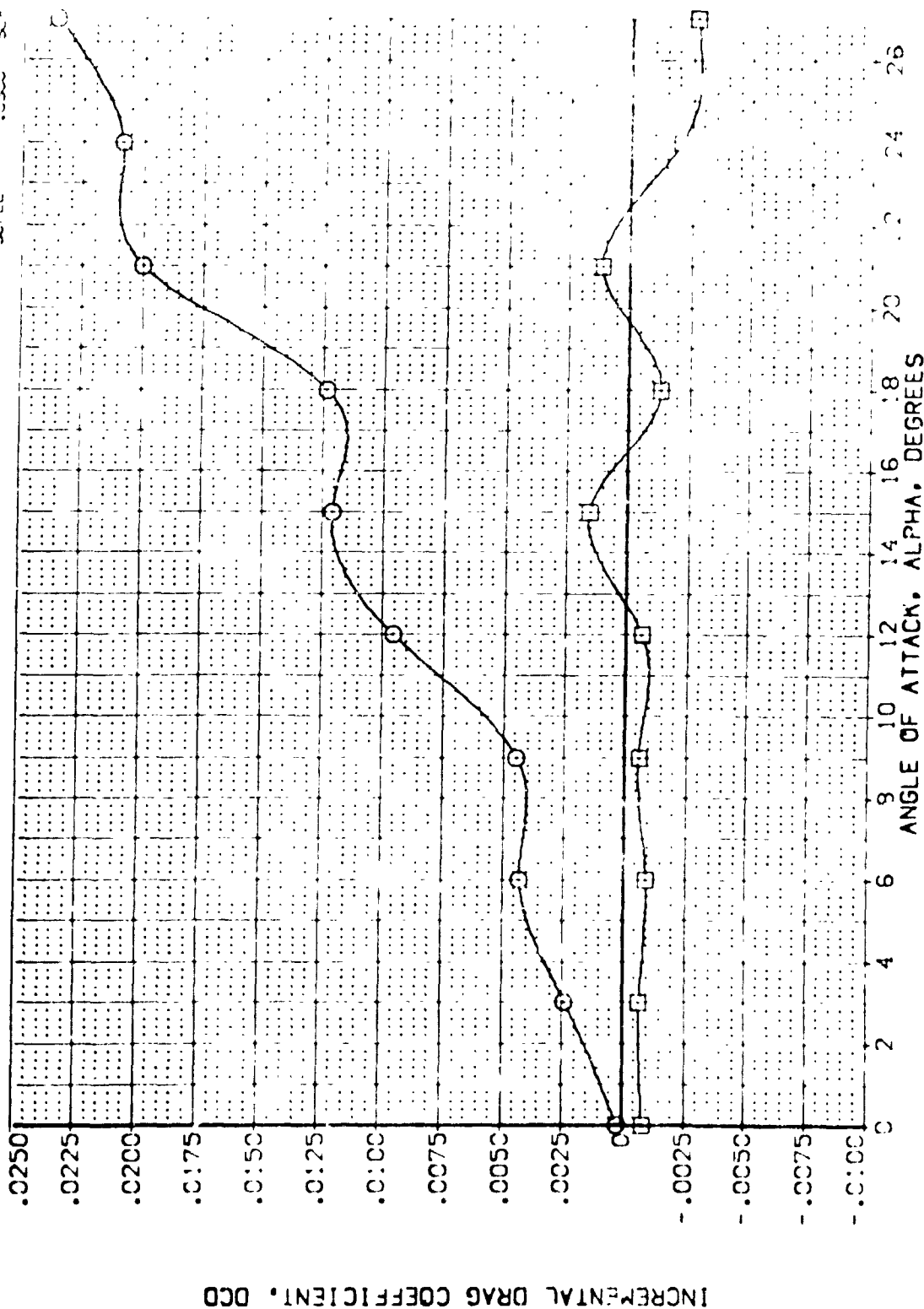
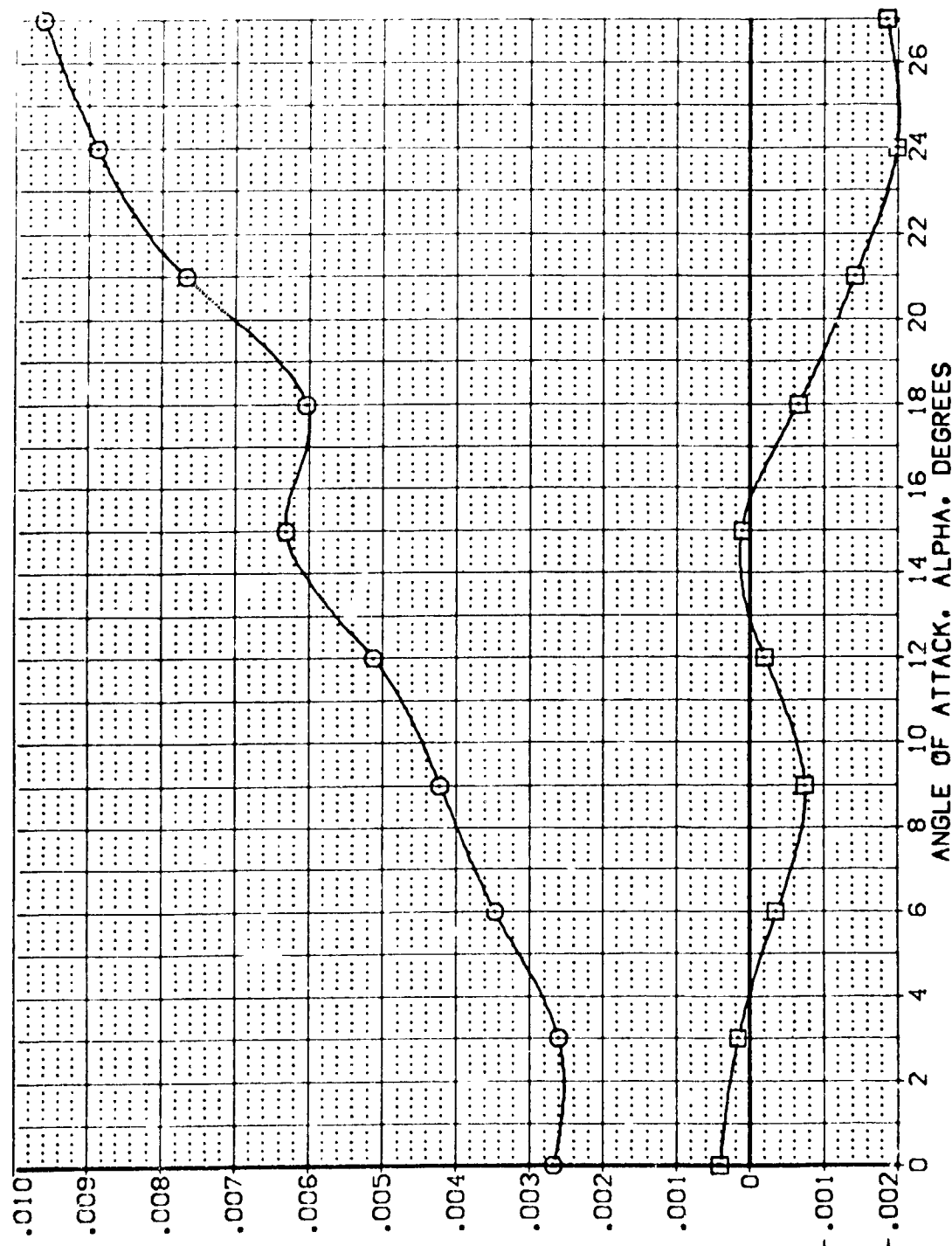


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		AILERON		DBF		SPDRX		REFERENCE INFORMATION	
ARC 87-747	Q	ARC 87-747	QAS3C B C M F VI V	.000	.000	.000	.000	16.300	55.000	SPREF	2.4710	SQ.FT.	
ARC 87-747	I	ARC 87-747	QAS3C B C M F VI V	.000	.000	.000	.000	-11.700	55.000	LREF	14.2440		
										BREF	28.1004		
										XPRD	32.3010		
										YPRD	.0000		
										7PRD	11.2500		
										SCALE	.0300	SCALE	



INCREMENTAL AXIAL FORCE COEFFICIENT, DCA

FIG. 8 BODYFLAP EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[VELD10] ARC 87-747 OAS3C B C M F V1 V NON: RV/L

[VELC11] ARC 87-747 OAS3C B C M F V1 V NON: RV/L

ELEVON AILRON DBF SPOBRK REFERENCE INFORMATION

.000 .000 16.300 55.000 SREF 2.4210 50. FT.

.000 .000 -11.700 55.000 LREF 4.2440 1. N.

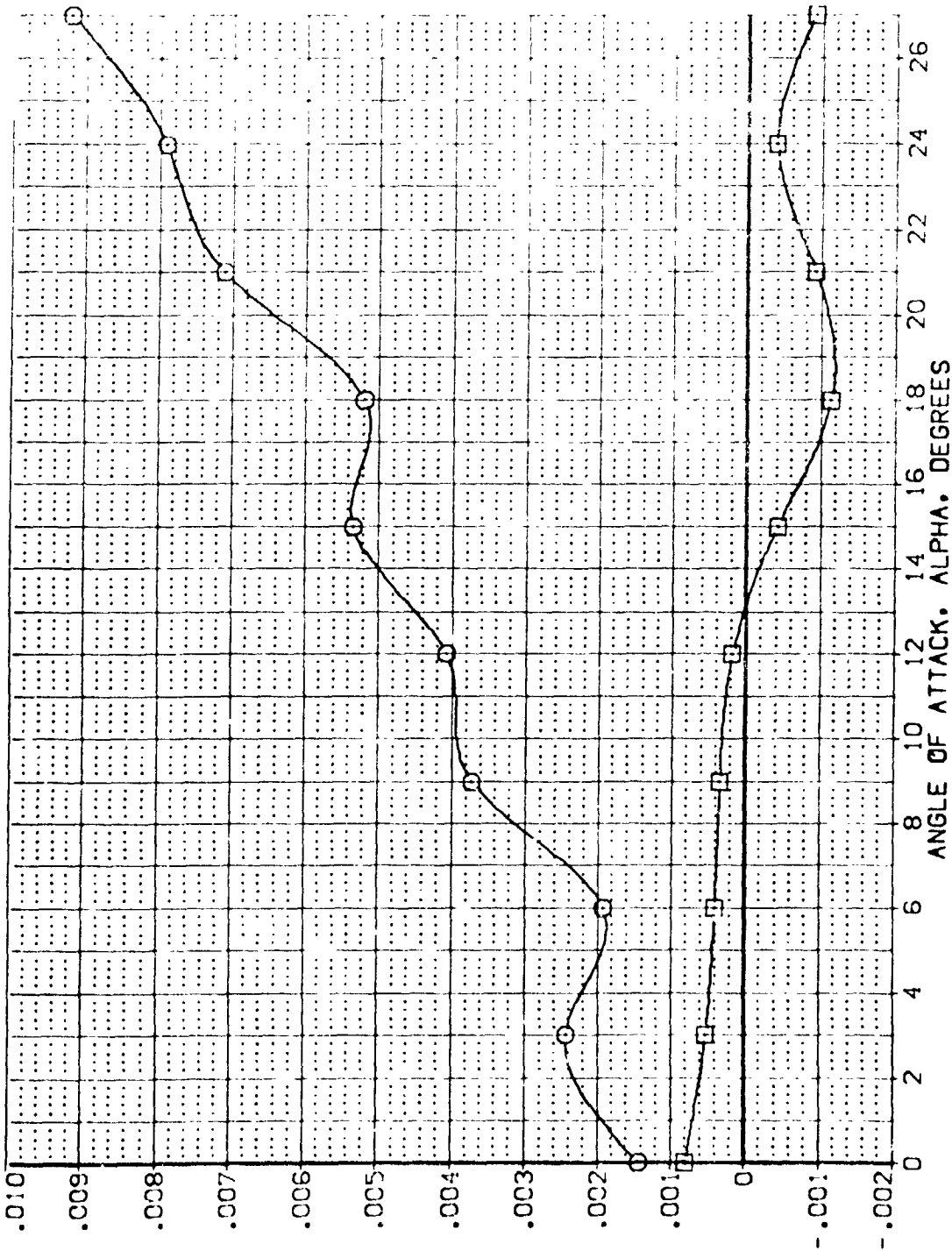
.000 .000 .000 55.000 BREF 28.1004 1. N.

.000 .000 .000 55.000 XMRP 32.3010 1. N.

.000 .000 .000 55.000 YMRP 11.7500 1. N.

.000 .000 .000 55.000 ZMRP 11.7500 1. N.

.000 .000 .000 55.000 SCALE .0300 SCALE



INCREMENTAL AXIAL FORCE COEFFICIENT, DCA

FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00





DATA SET SYMPL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

SYMBOL	DESCRIPTION	REFERENCE INFORMATION
[VELD10]	ARC 87-747 BAS3C B C M F V1 V	SREF 2.4210 SQ.FT.
[VELD11]	ARC 87-747 BAS3C B C M F V1 V	LREF 14.244C
		BREF 28.1004
		XREF 32.3010
		YREF 11.2500
		ZREF 11.2500
		SCALE .0300

ELEVON ALLRON DBF SPOBRK

ELEVON	ALLRON	DBF	SPOBRK
.000	.000	16.300	55.000
.000	.000	-11.700	55.000

NON. RNVL

NON.	RNVL
NON.	RNVL

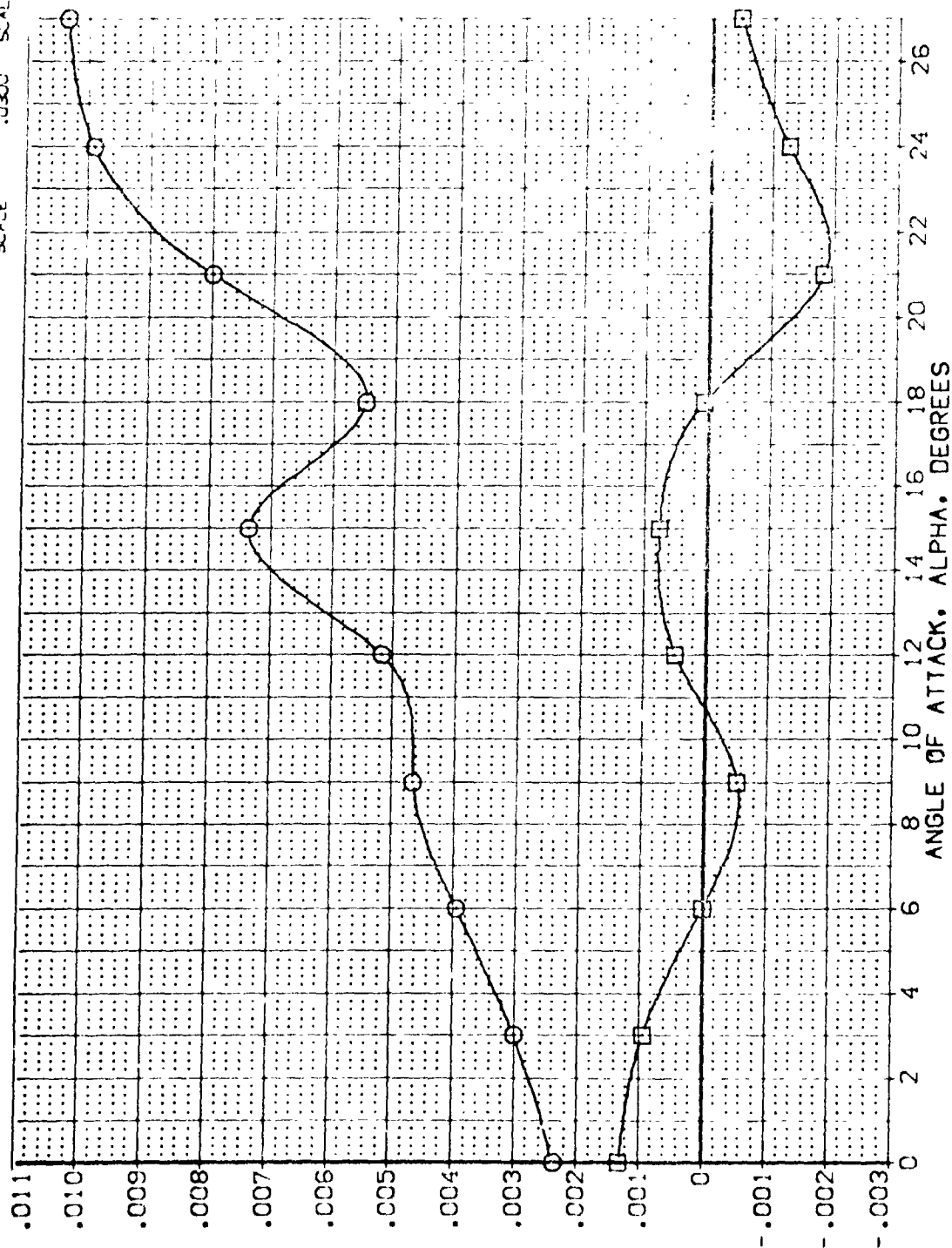


FIG. 8 BODYFLAP EFFECTS

(A) MACH = 2.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	DBF	SPOBRK	SREF	2.4210	50.00
[VELO01]	ARC 87-747 DASSC B C M F VI V	.000	.000	16.300	55.000	LREF	14.2440	55.000
[VELO11]	ARC 87-747 DASSC B C M F VI V	.000	.000	-11.700	55.000	BREF	28.1004	55.000
						XMRP	32.3010	55.000
						YMRP	.0000	55.000
						ZMRP	11.2500	55.000
						SCALE	.0300	55.000

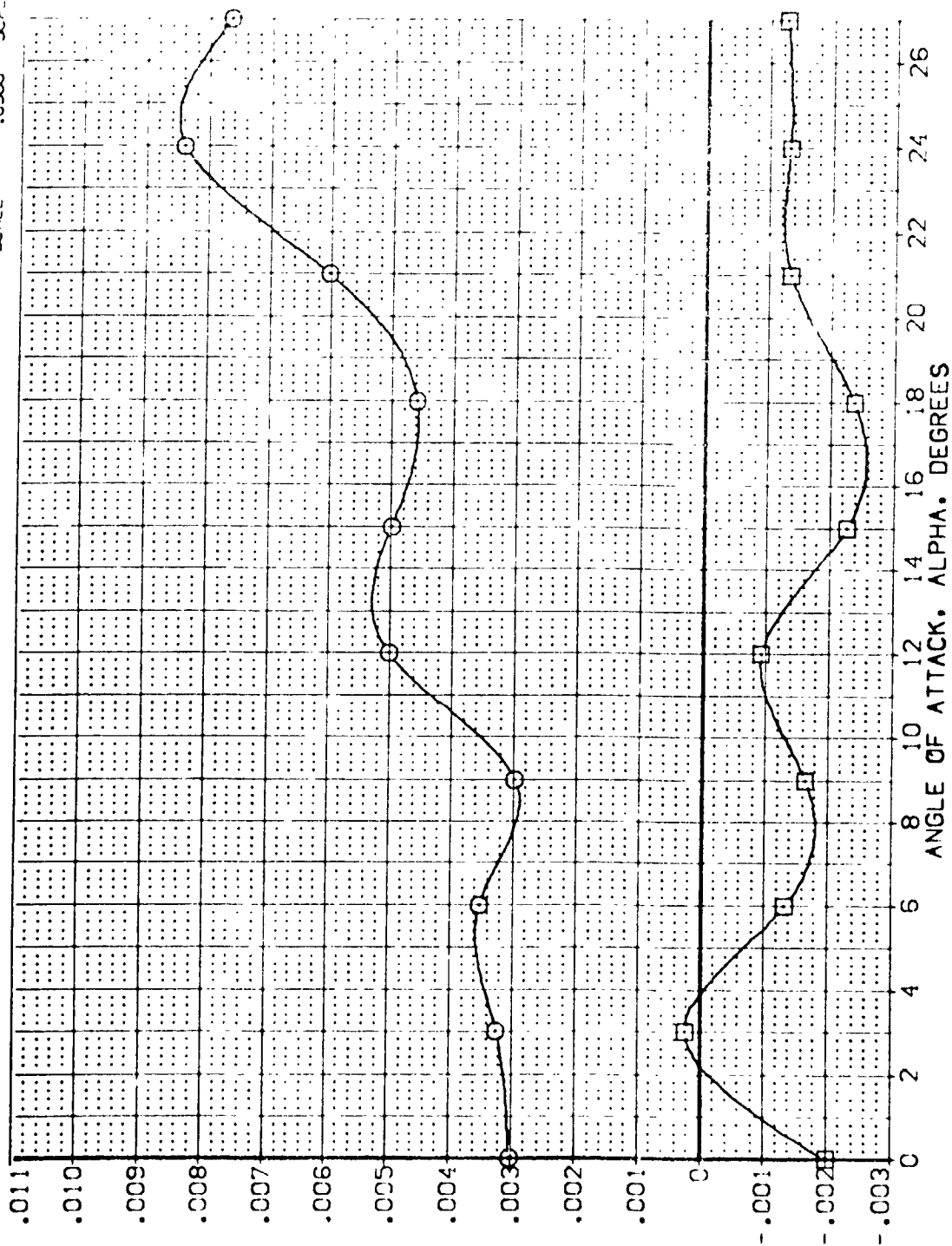


FIG. 8 BODYFLAP EFFECTS

(C) VACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

ARC 87-747	ARC 87-747	BASEC B C M F V	Y	NOH	RV/L	ELEVON	AIRLON	DBF	SPDRBK	REFERENCE INFORMATION
(VELO:0)	(VELO:1)	BASEC B C M F V	Y	NOH	RV/L	.000	.000	.000	55.000	SREF 2.4210 SQ.FT.
(VELO:1)	(VELO:1)	BASEC B C M F V	Y	NOH	RV/L	.000	.000	-11.700	55.000	LREF 14.2440
										BREF 28.1004
										YMRP 32.3010
										ZMRP 0.0000
										SCALE 11.2500
										SCALE .0000

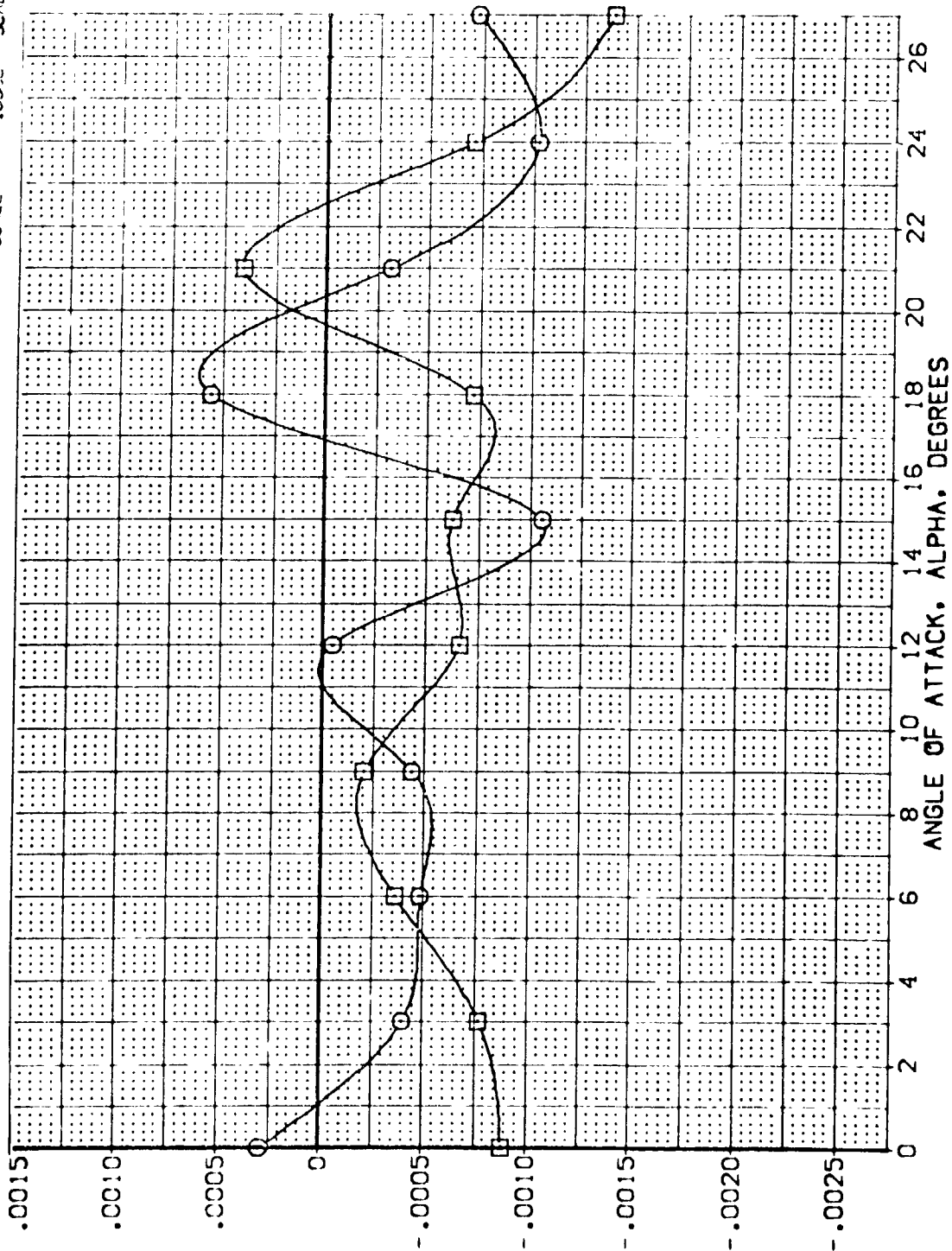


FIG. 8 BODYFLAP EFFECTS

(A)MACH = 2.50









DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	DBF	SPDBRK	REFERENCE INFORMATION
{VELO10}	ARC 87-747 OAS3C B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
{VELO11}	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	55.000	LREF 14.2440
						BREF 28.1000
						XMRP 37.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

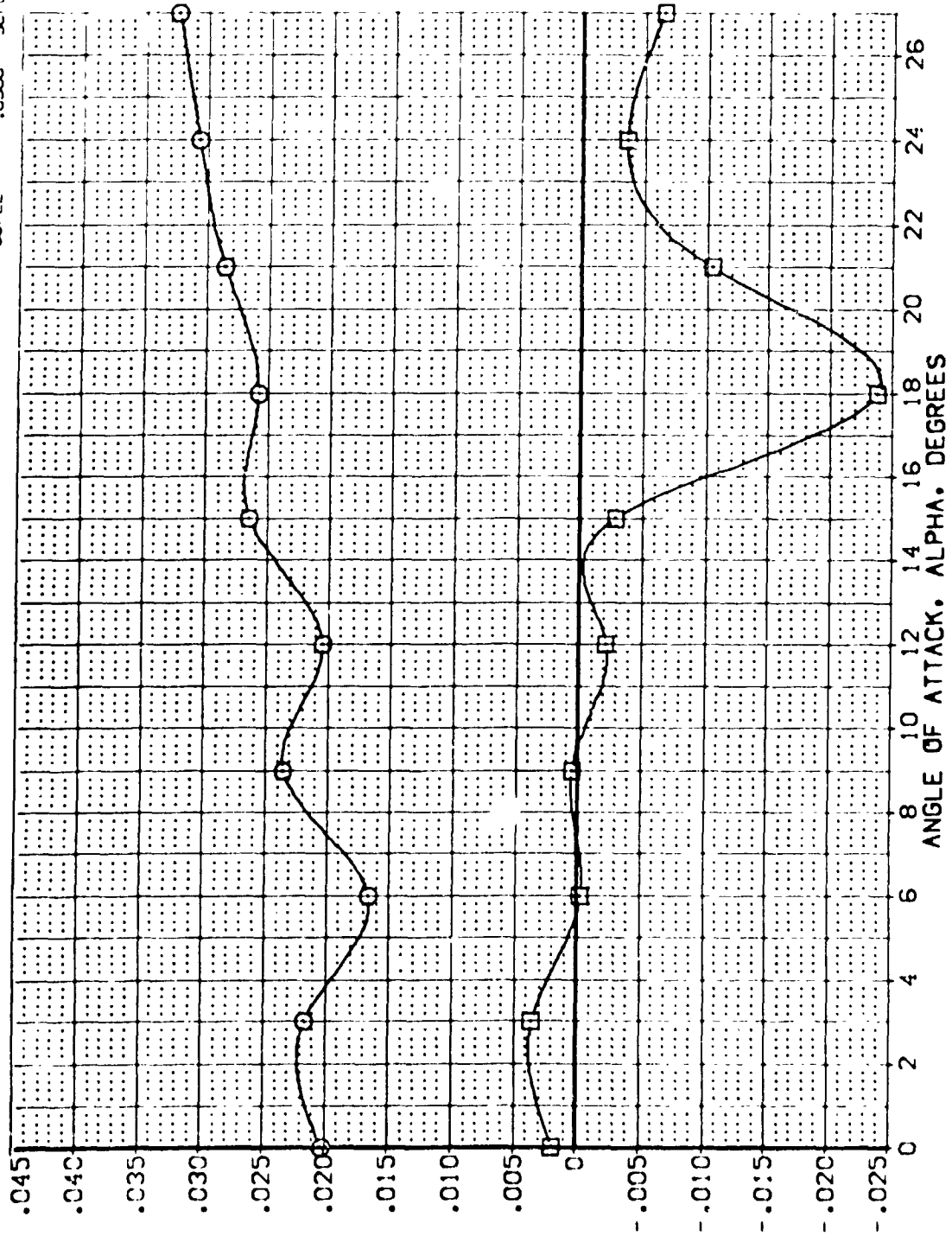


FIG. 8 BODYFLAP EFFECTS

(B)MAC = 3.00

DATA SET SYMBOL: 5  
 :VELOC:10  
 :VELLOC:11

CONFIGURATION DESCRIPTION:  
 ARC 87-747 BASIC B C H F V I V  
 ARC 87-747 BASIC B C H F V I V

ELEVON: .000  
 ALLRON: .000  
 DIF: 15.300  
 SPDRBK: 55.000  
 55.000

REFERENCE INFORMATION:  
 SREF: 2.4210  
 LREF: 14.2440  
 BREF: 28.1004  
 XMRD: 32.3010  
 YMRD: .0000  
 ZMRD: 11.2500  
 SCALE: .0300

INCREMENTAL NORMAL FORCE COEFFICIENT, DCN

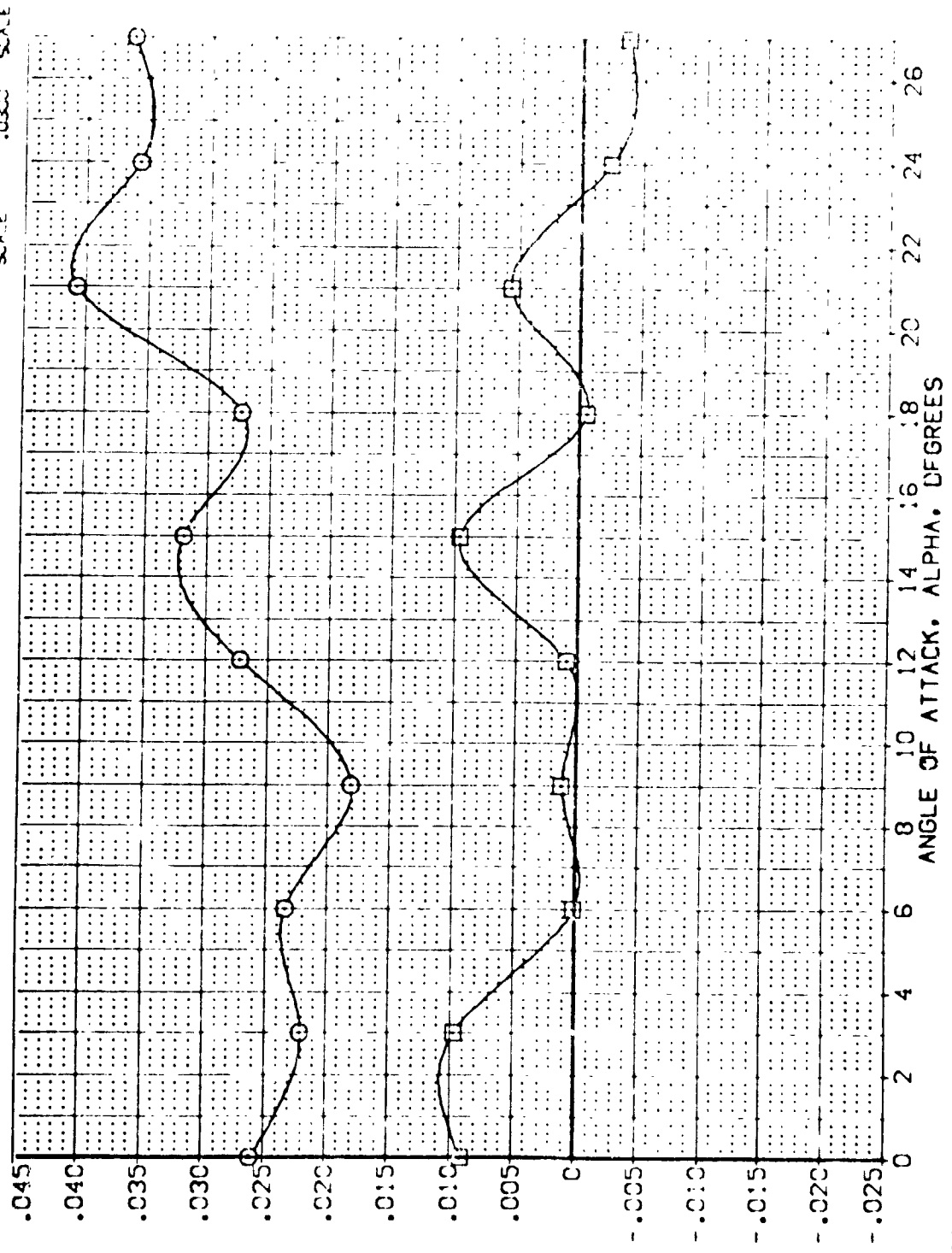
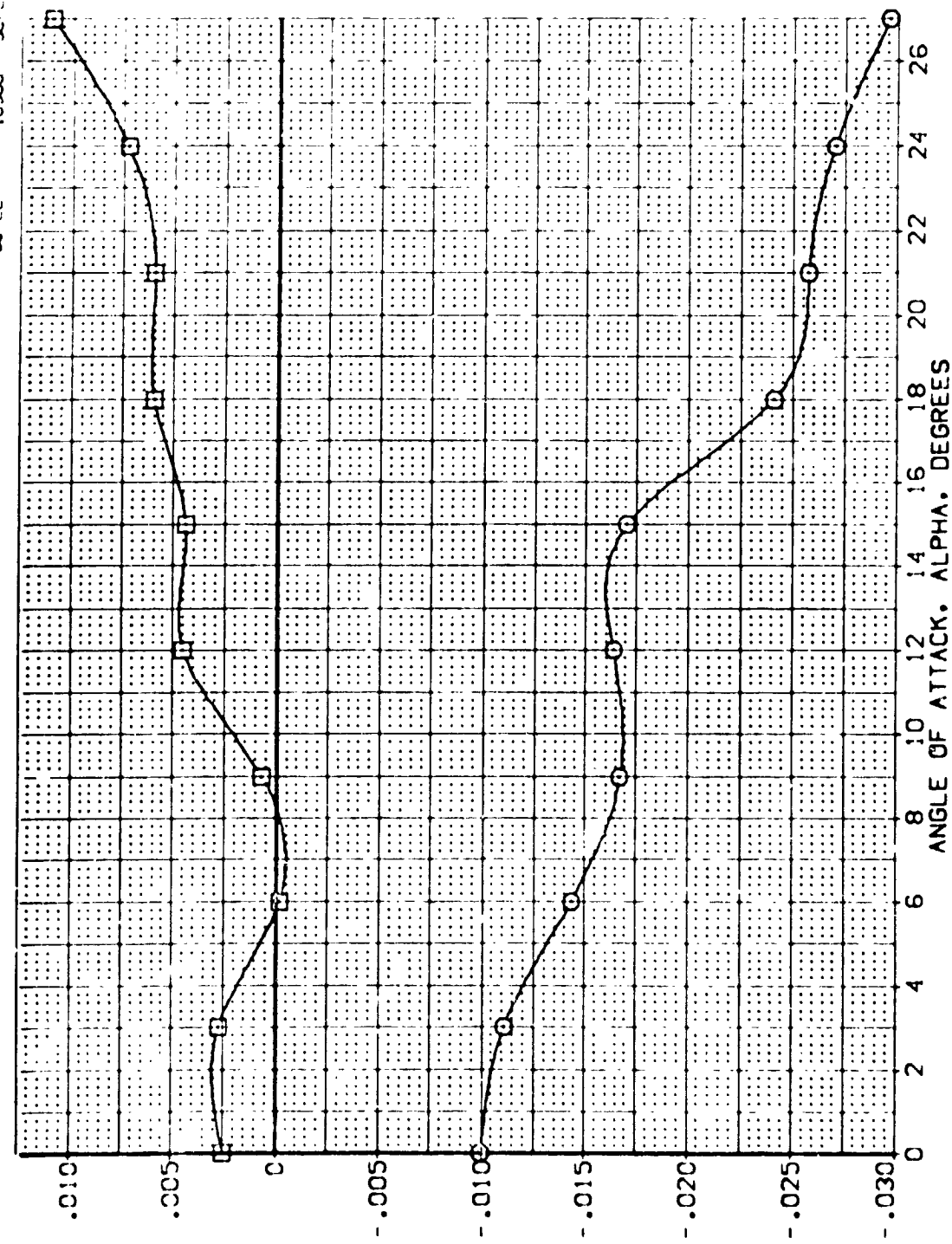


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	ATL-RON	DBF	SPEED	REFERENCE INFORMATION
(1) 010	ARC 87-747 CAS3C B C F V	.000	.000	16.300	55.000	SREF 2.4210 SC.FT.
(2) 011	ARC 87-747 CAS3C B C F V	.000	.000	-11.700	55.000	LREF 14.2440
						BREF 28.1004
						XREF 37.3010
						YREF .0000
						ZREF 11.7500
						SCALE .0000



INCREMENTAL PITCHING MOMENT COEFFICIENT (FWD C.G.), DCMFWD

FIG. 8 BODYFLAP EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL: [ ]  
 CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C M F V I V NOM: RV/L  
 REFERENCE INFORMATION: SREF 2.4210 SQ.FT.  
 LREF 14.2440  
 BREF 28.1004  
 XREF 37.3010  
 YREF 11.7500  
 ZREF 11.7500  
 SCALE 1.0000

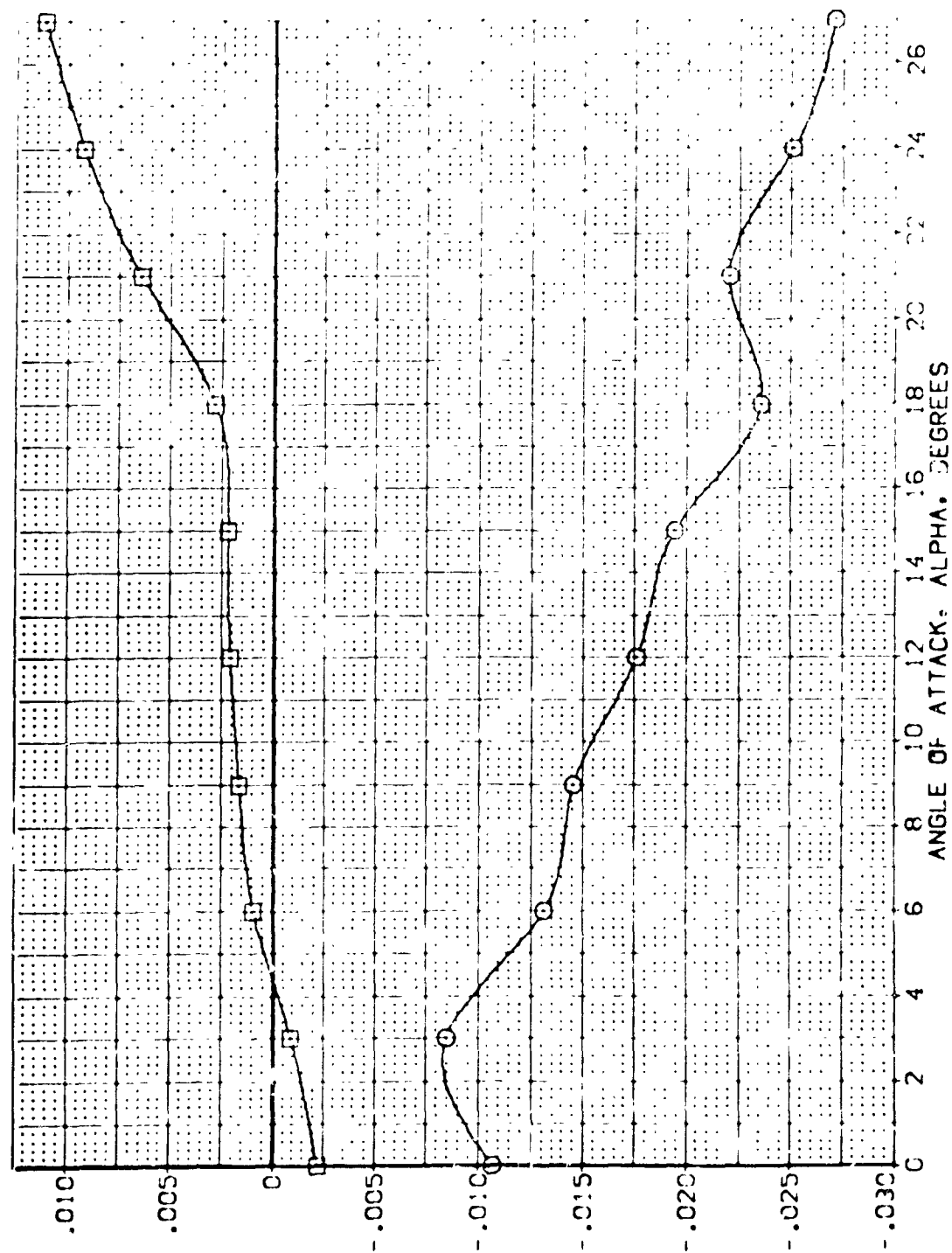


FIG. 8 BODYFLAP EFFECTS

(B)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AIRLON	DBF	SFUBRK	REFERENCE INFORMATION
(1-010)	ARC 87-747 QAS3C B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
(1-011)	ARC 87-747 QAS3C B C M F VI V	.000	.000	-11.700	55.000	LRFF 14.2440
						BRFF 28.1000
						YREF 37.5610
						YREF 11.0000
						ZREF 11.7500
						SCALE .0300

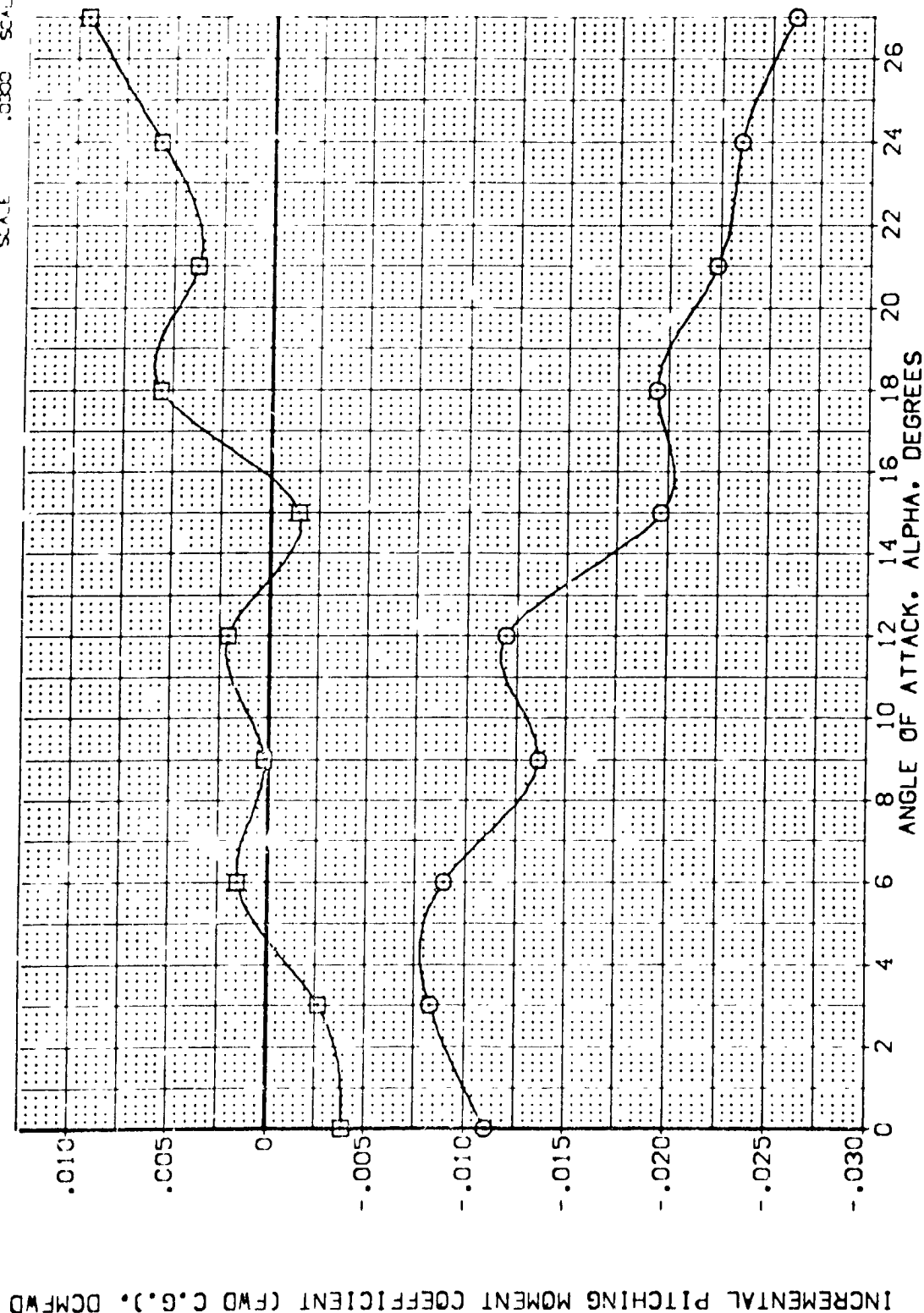


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL: [ ] CONFIGURATION DESCRIPTION: ARC 87-747 QAS3C B C M F VI V NON: RM/L  
 [VELO10] [VELO11] ARC 87-747 QAS3C B C M F VI V NON: RM/L

ELEVON	AILRON	DBF	SPODRK	REFERENCE INFORMATION
.000	.000	16.300	55.000	SREF 2.4210
.000	.000	-11.700	55.000	LREF 14.2140
				BREF 28.1004
				YREF 32.3010
				ZREF .0000
				SCALE 11.2500
				SCALE 10.300

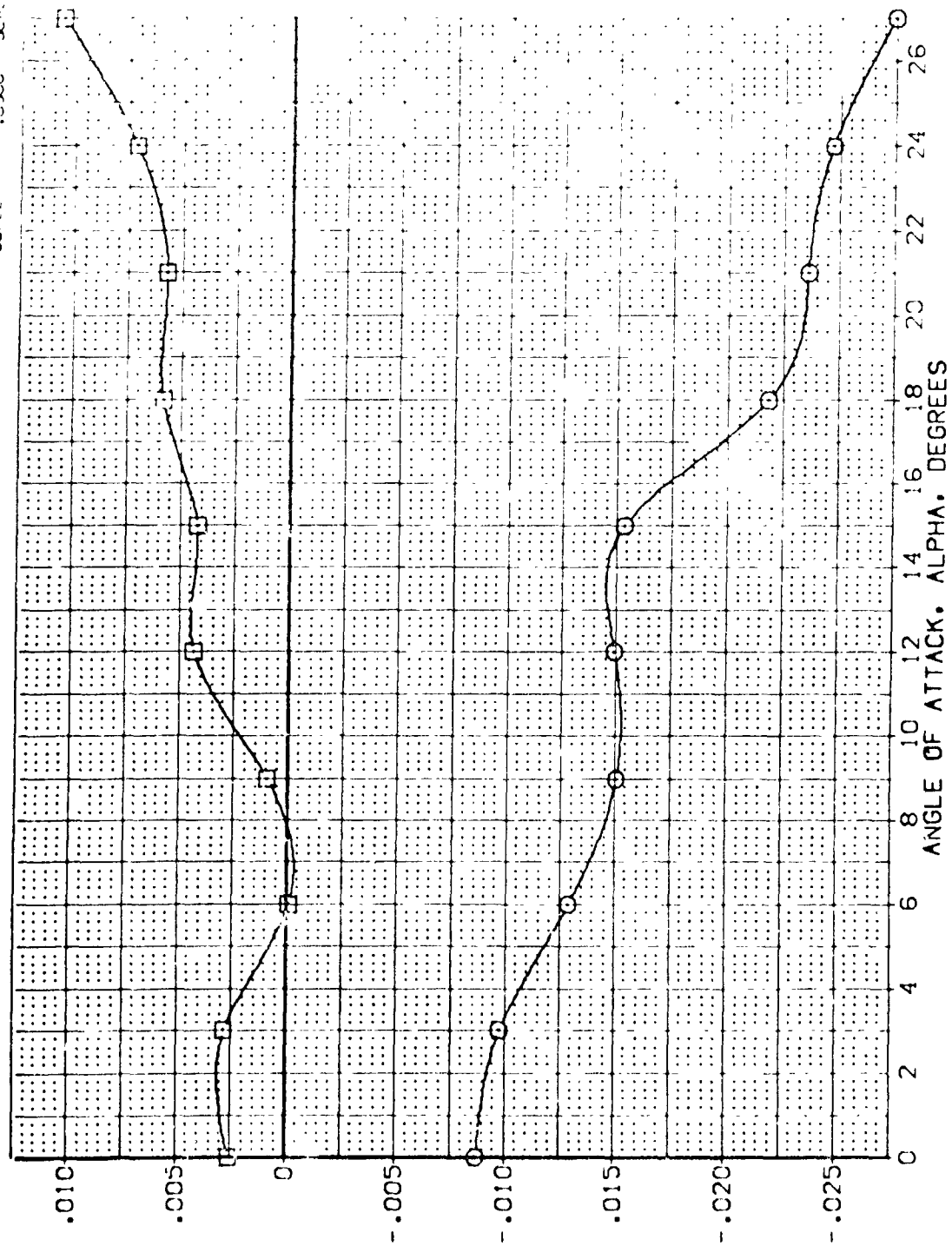


FIG. 8 BODYFLAP EFFECTS  
 (MACH = 2.50)

DATA SET SYMBOL: [ ]  
 [VELD:0] [ ]  
 [VELD:1] [ ]

CONFIGURATION DESCRIPTION:  
 ARC 87-747 QAS3C B C M F V1 V  
 ARC 87-747 QAS3C B C M F V1 V

ELEVON: .000  
 AILRON: .000  
 DBF: 16.300  
 SPDBRK: 55.000  
 55.000

REFERENCE INFORMATION:  
 SPREF: 2.4210 50. FT.  
 LREF: 14.2440 IN.  
 BRREF: 28.1004 IN.  
 XMRP: 32.3010 IN.  
 YMRP: .0000 IN.  
 ZMRP: 11.2500 IN.  
 SCALE: .0300

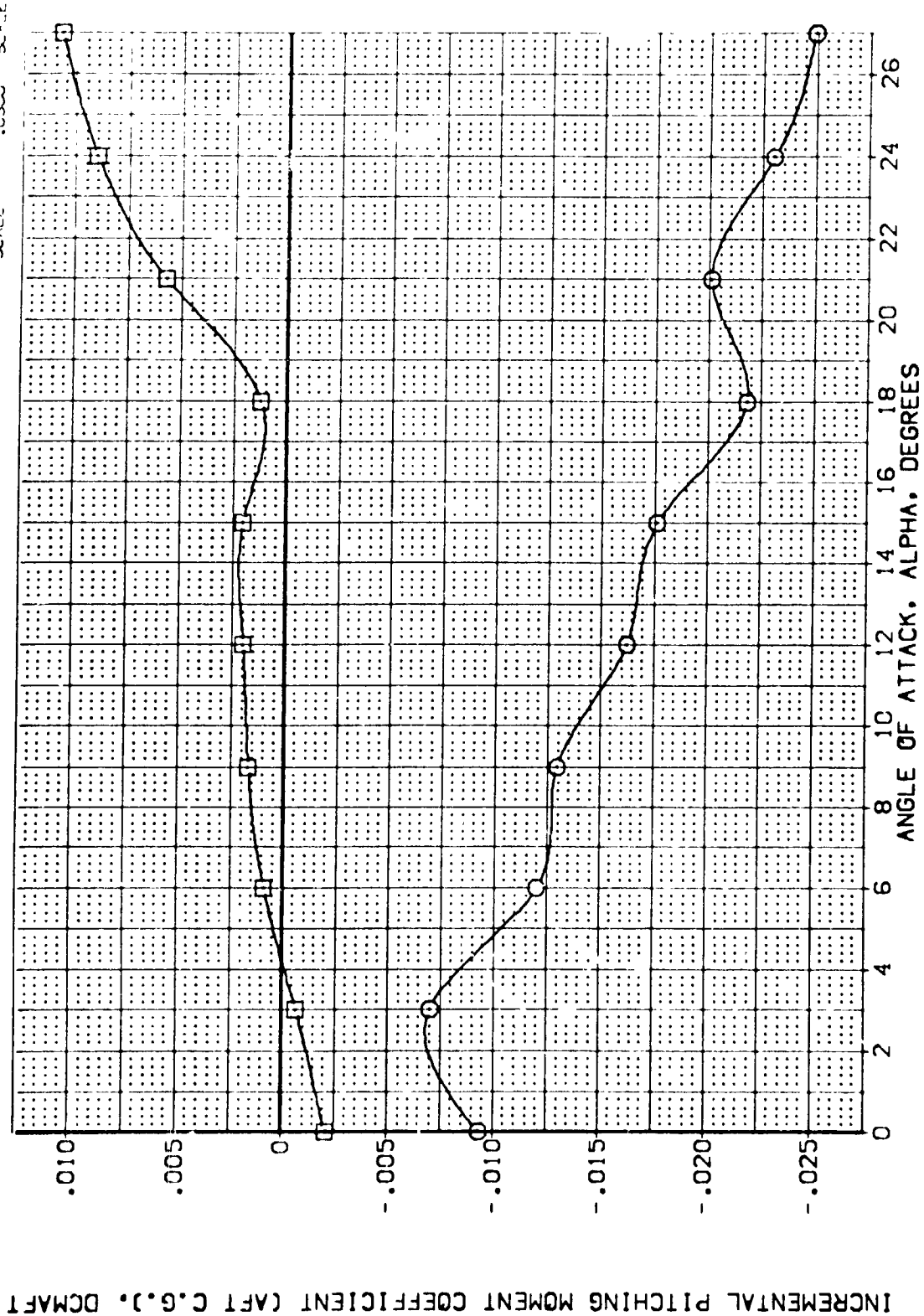


FIG. 8 BODYFLAP EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL: [Q] [VELO10] [VELO11]  
 CONFIGURATION DESCRIPTION: ARC 87-747 QAS3C B C M F V1 V NOM: RN/L  
 ARC 87-747 QAS3C B C M F V1 V NOM: RN/L  
 ELEVON: .000 .000  
 AIRLON: .000 .000  
 DBF: 16.300 -11.700  
 SPOBRK: 55.000 55.000  
 REFERENCE INFORMATION:  
 SPREF: 2.4210 50.000  
 LRREF: 14.2140  
 BRREF: 28.1004  
 XMRP: 32.3010  
 YMRP: .0000  
 ZMRP: .0000  
 SCALE: 11.2500 .0000

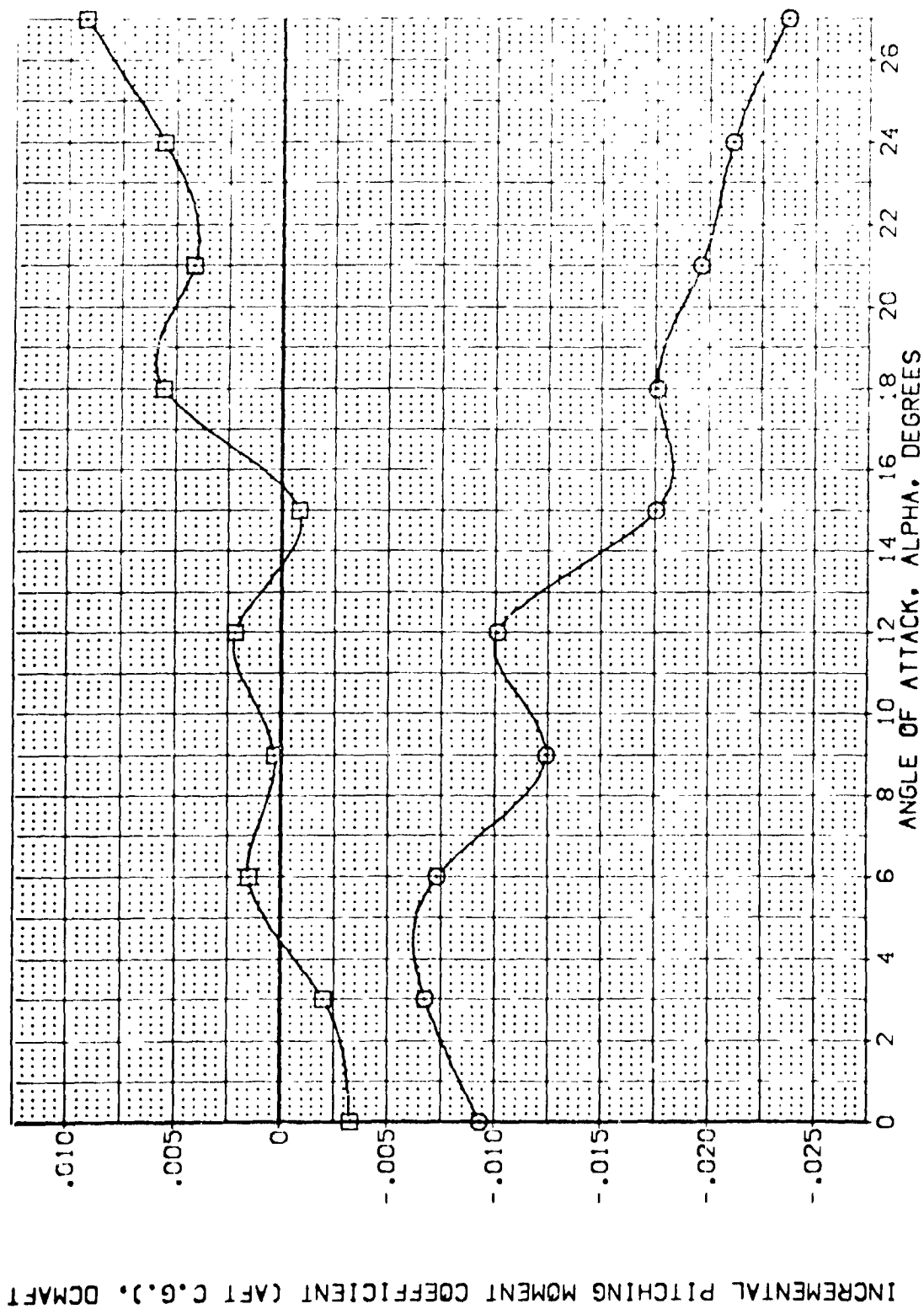


FIG. 8 BODYFLAP EFFECTS

(C)MACH = 3.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPEEDBRAK	REFERENCE INFORMATION
[ TEL074 ]	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[ TELC11 ]	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	55.000	LREF 14.2440 IN.
[ TELC38 ]	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	85.000	BREF 28.1004 IN.
						XMREF .0000 IN.
						YMREF .0000 IN.
						ZMREF .0000 IN.
						SCALE 11.7500
						SCALE .0300

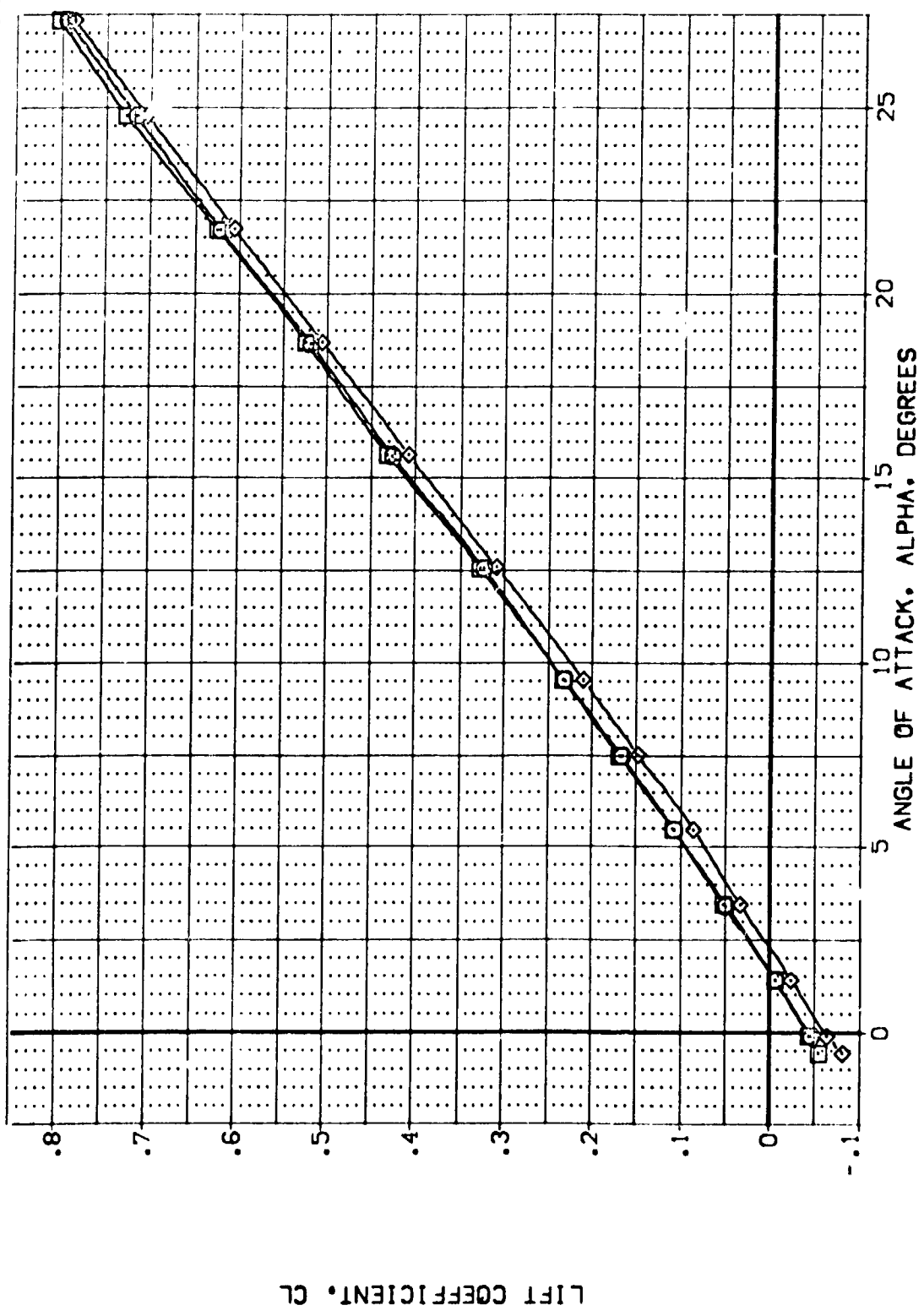


FIG. 9 SPEEDBRAKE EFFECTS

(A)MACH = 2.50

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三三三

ELEVEN	ALIRON	BOFLAP	SPOBRK
.000	.000	-11.700	25.000
.000	.000	-11.700	55.000
.000	.000	-11.700	85.000

REFERENCE INFORMATION		SQ. FT.
SPEE	2.4210	11.
REF	14.2440	11.
BREF	28.1104	11.
XPRP	32.3010	11.
YPRP	0000	11.
ZPRP	11.0000	11.
SCALE	.0800	SCALE

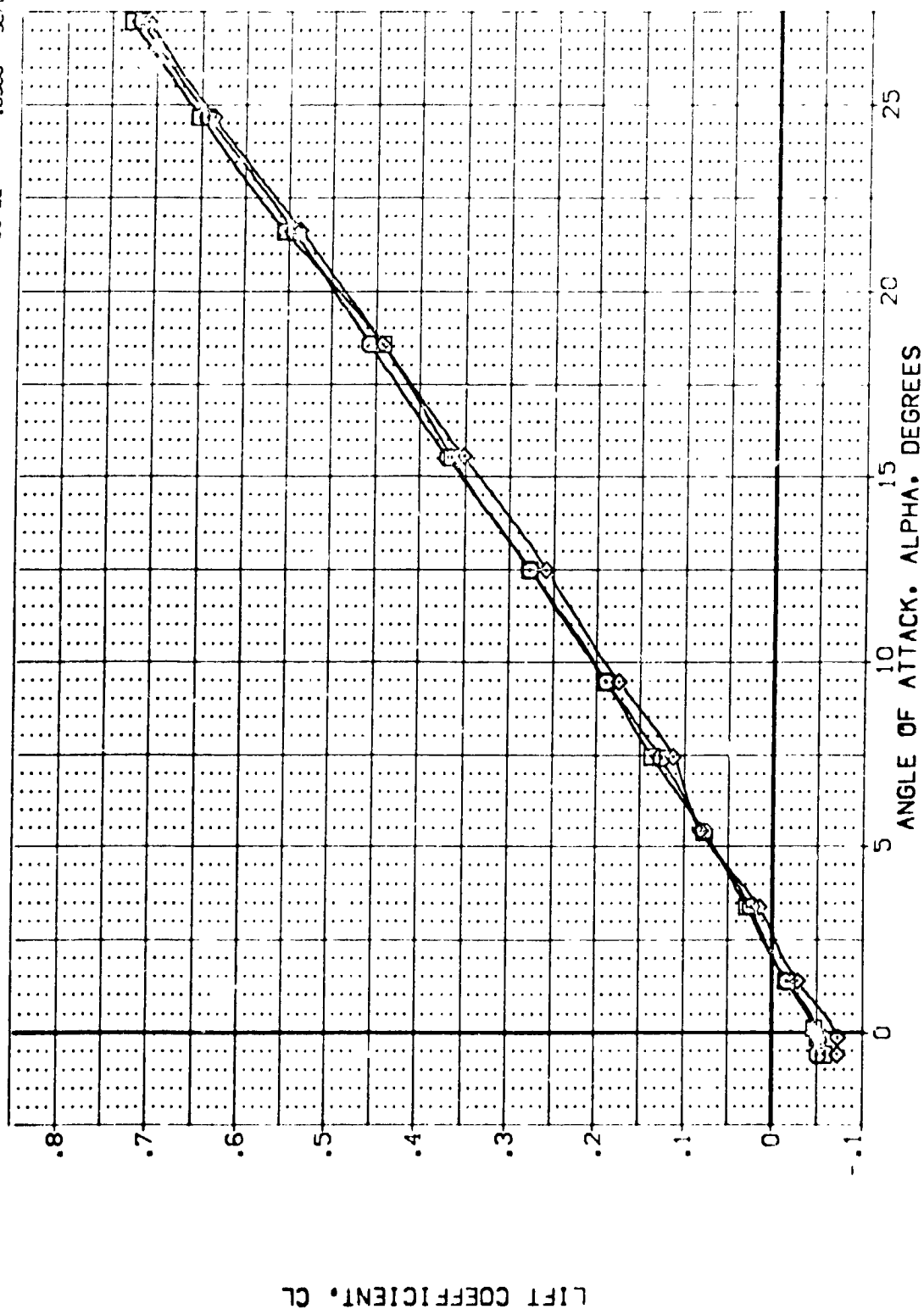


FIG. 9 SPEEDBRAKE EFFECTS

$$[B]_{MACH} = 3.00$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOILER	REFERENCE INFORMATION
TEL024	ARC 87-747 DASEC B C M F V1	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
TEL038	ARC 87-747 DASEC B C M F V1	.000	.000	-11.700	55.000	LREF 14.2440
TEL038	ARC 87-747 DASEC B C M F V1	.000	.000	-11.700	85.000	BREF 28.1004
						XMRP 32.3000
						YMRP .0000
						ZMRP .0000
						SCALE 11.7500
						SCALE .0300

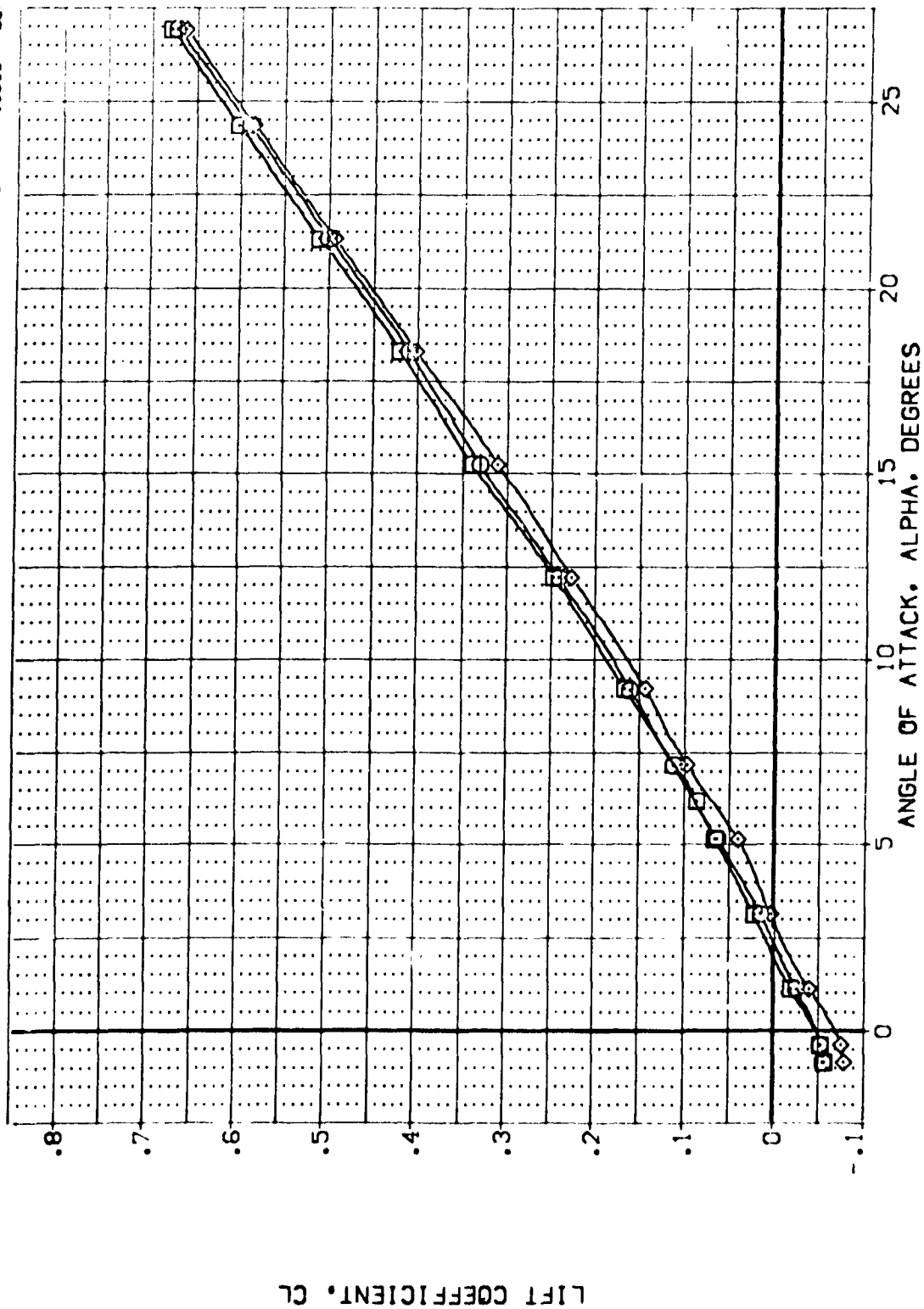


FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL: (TELO24) (TELO11) (TELO38)

CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C M F V I V NOM. RV/L ARC 87-747 BASIC B C M F V I V NOM. RV/L ARC 87-747 BASIC B C M F V I V NOM. RV/L

ELEVON: .000 .000 .000

AILERON: .000 .000 .000

BOFLAP: -11.700 -11.700 -11.700

SPOBRK: 25.000 55.000 85.000

REFERENCE INFORMATION: SREF 2.4210 SQ.FT. LREF 14.2440 BREF 28.1004 XMRP 32.3010 YMRP .0000 ZMRP 11.2500 SCALE .0300

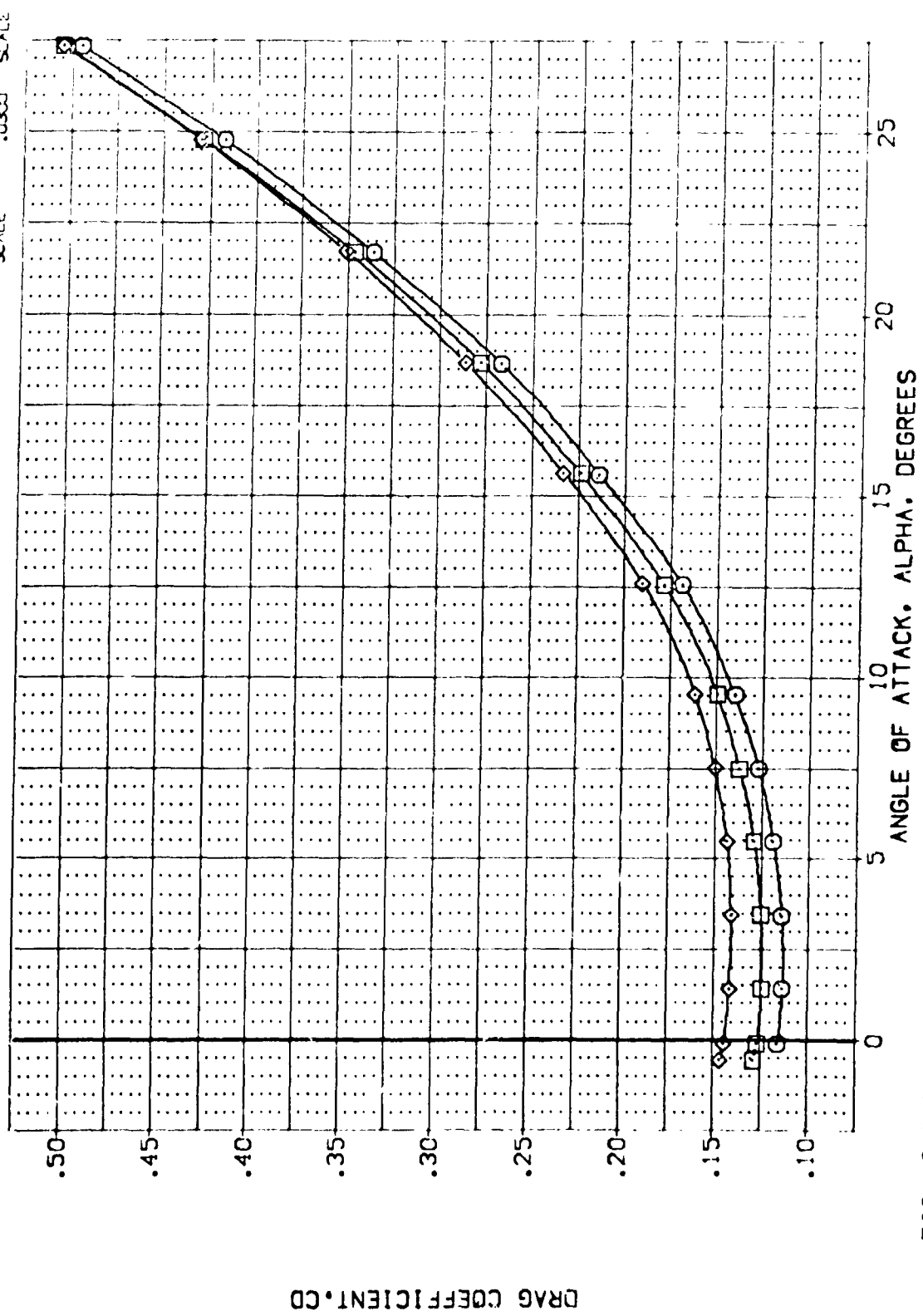


FIG. 9 SPEEDBRAKE EFFECTS

(A) MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	AIRLIFT	BOFLAP	SPEED	REFERENCE INFORMATION
(TEL024)	ARC 87-747 QAS3C B C M F V	.000	.000	-11.700	25.000	SREF 2.421C 50.000
(TEL011)	ARC 87-747 QAS3C B C M F V	.000	.000	-11.700	55.000	LRREF 14.244C
(TEL038)	ARC 87-747 QAS3C B C M F V	.000	.000	-11.700	85.000	BRREF 28.100C
						XRREF 32.501C
						YRREF 11.250C
						ZRREF 11.250C
						SCALE .0300

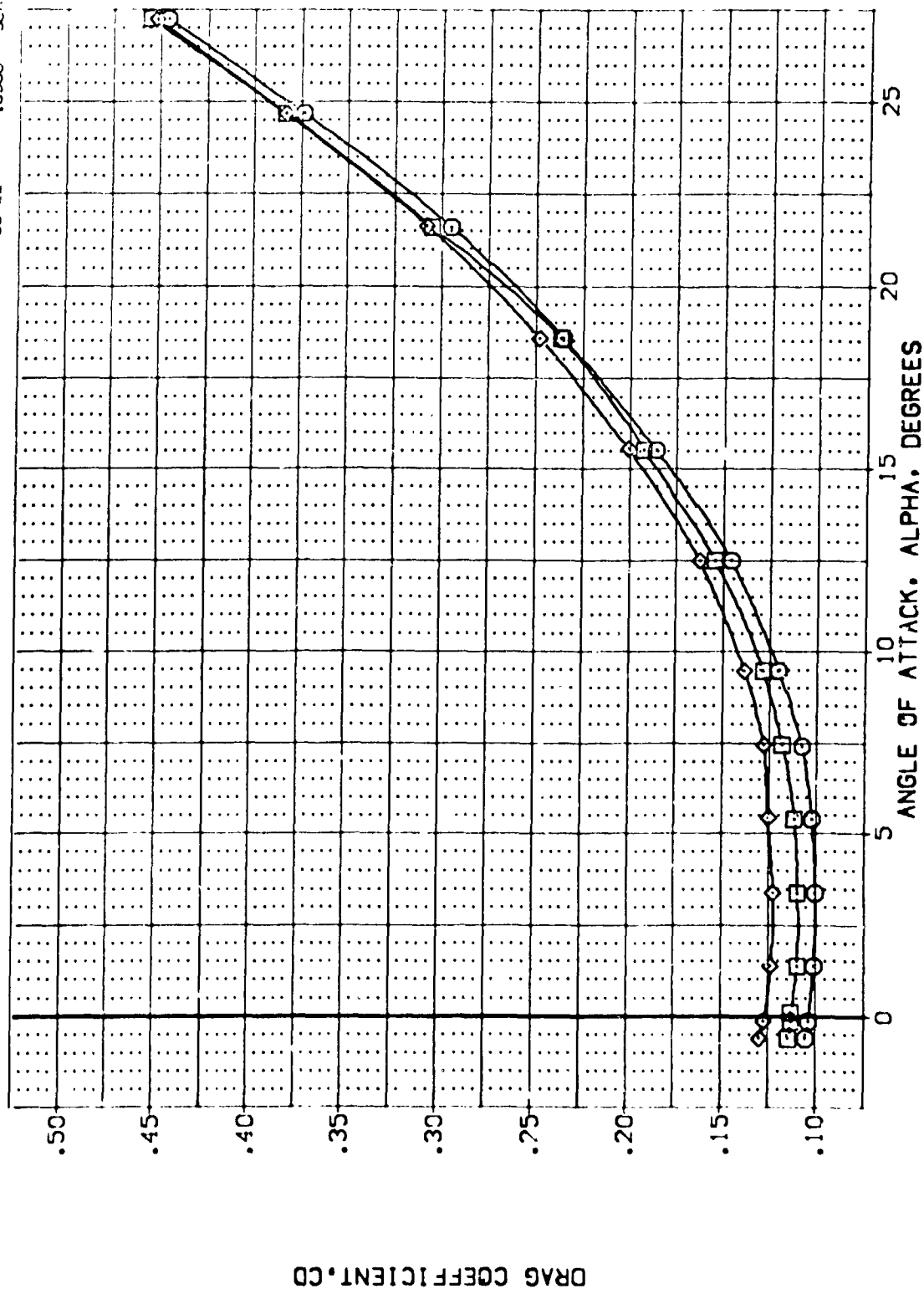


FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
{TELO24}	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
{TELO11}	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	55.000	LREF 14.2440 IN.
{TELO30}	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	85.000	BREF 28.1004 IN.
						XMRD 32.3010 IN.
						YMRD .0000 IN.
						ZMRD 11.2500 IN.
						SCALE .0300

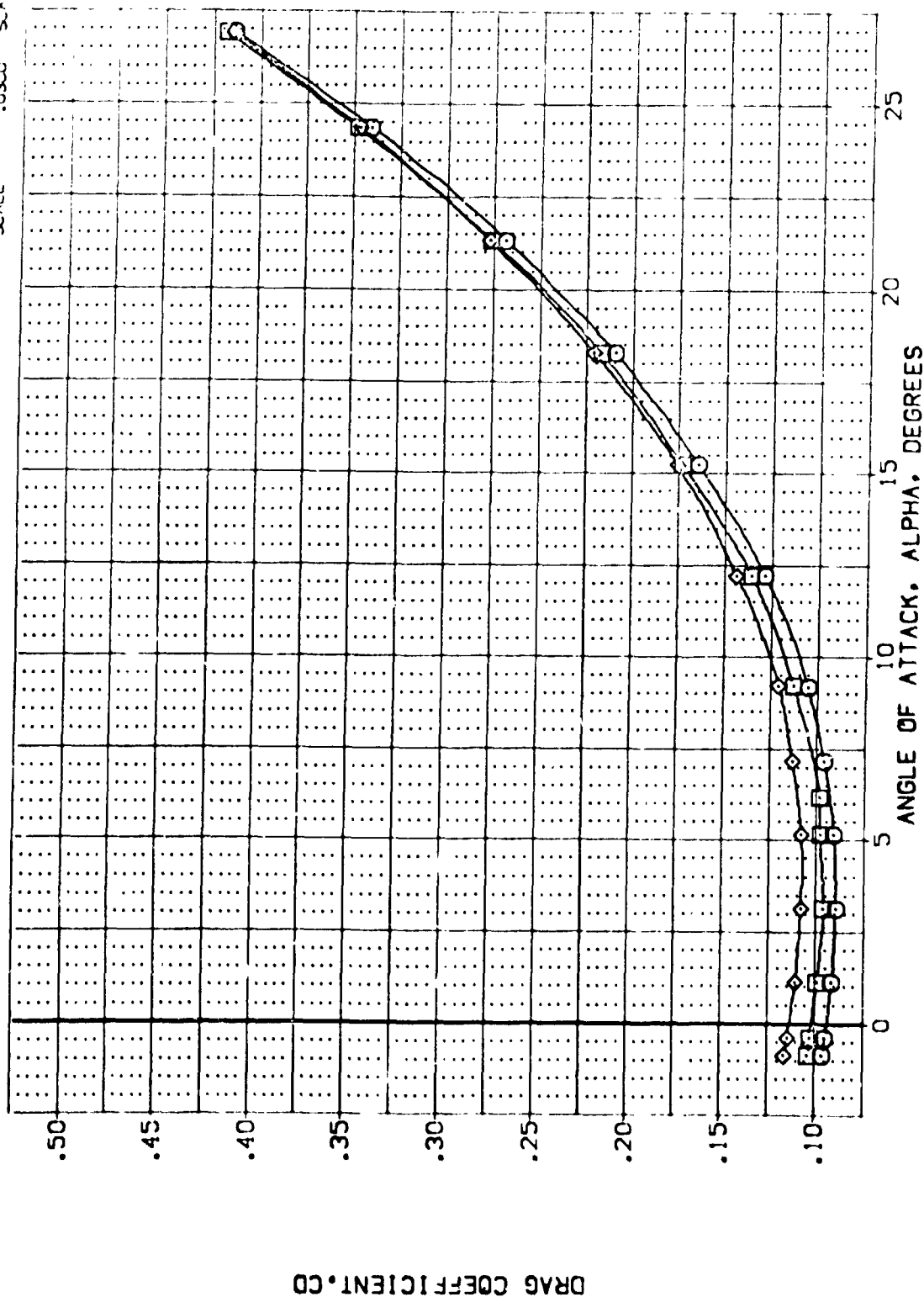


FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPODBRK	REFERENCE INFORMATION
(*ELOC24)	APC 87-747 3A53C B C M F V1 V	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(*ELOC25)	APC 87-747 3A53C B C M F V1 V	.000	.000	-11.700	55.000	LREF 14.2440
(*ELOC30)	APC 87-747 3A53C B C M F V1 V	.000	.000	-11.700	85.000	BREF 28.1004
						XMRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

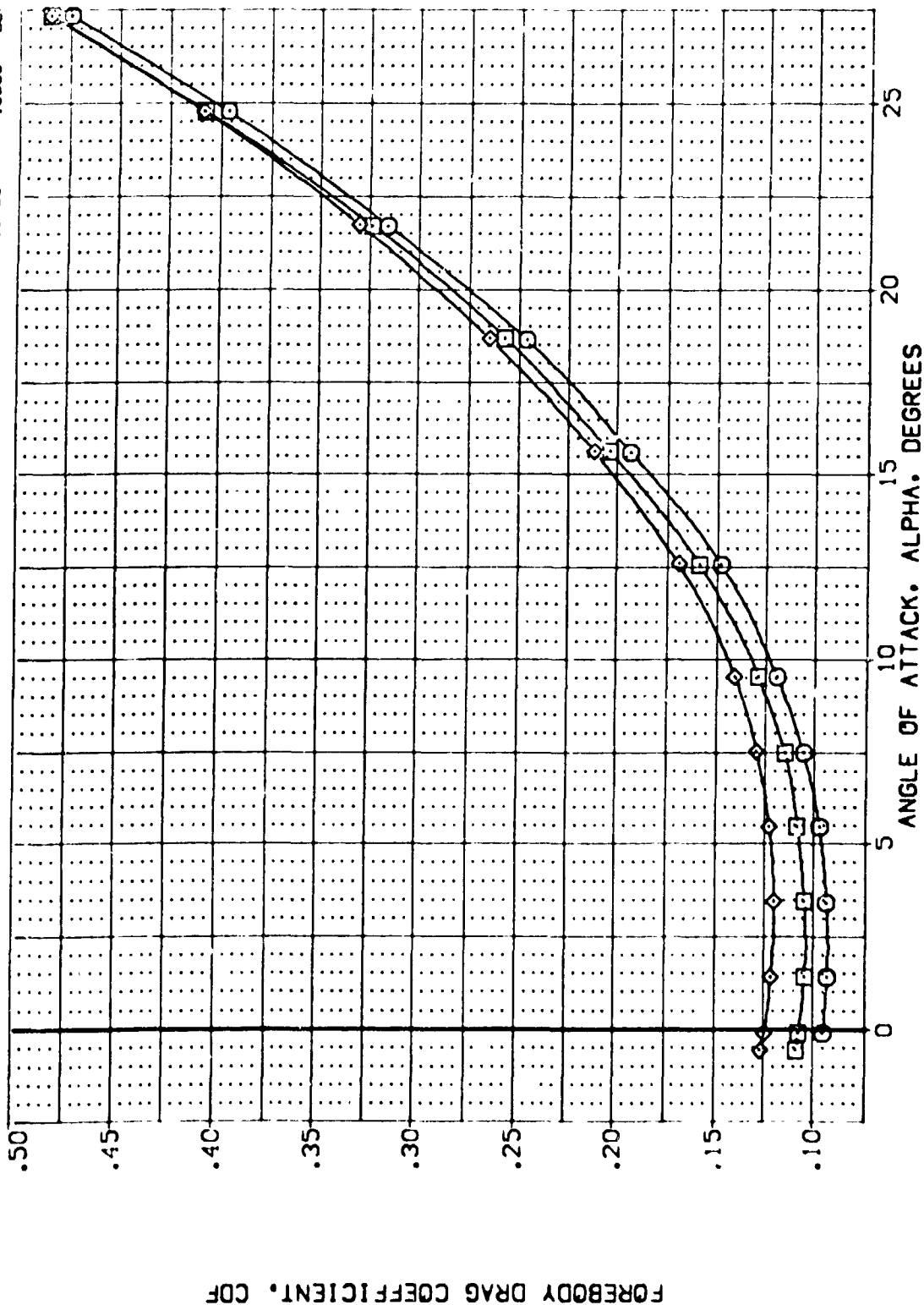


FIG. 9 SPEEDBRAKE EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[TELO24]	ARC 87-747 DASSC B C M F VI	.000	.000	-11.700	25.000	SREF 2.421C
[TELO11]	ARC 87-747 DASSC B C M F VI	.000	.000	-11.700	55.000	LREF 14.244C
[TELO38]	ARC 87-747 DASSC B C M F VI	.000	.000	-11.700	85.000	BREF 28.100C
						XREF 32.501C
						YREF 50.000C
						ZREF 11.000C
						SCALE .0300

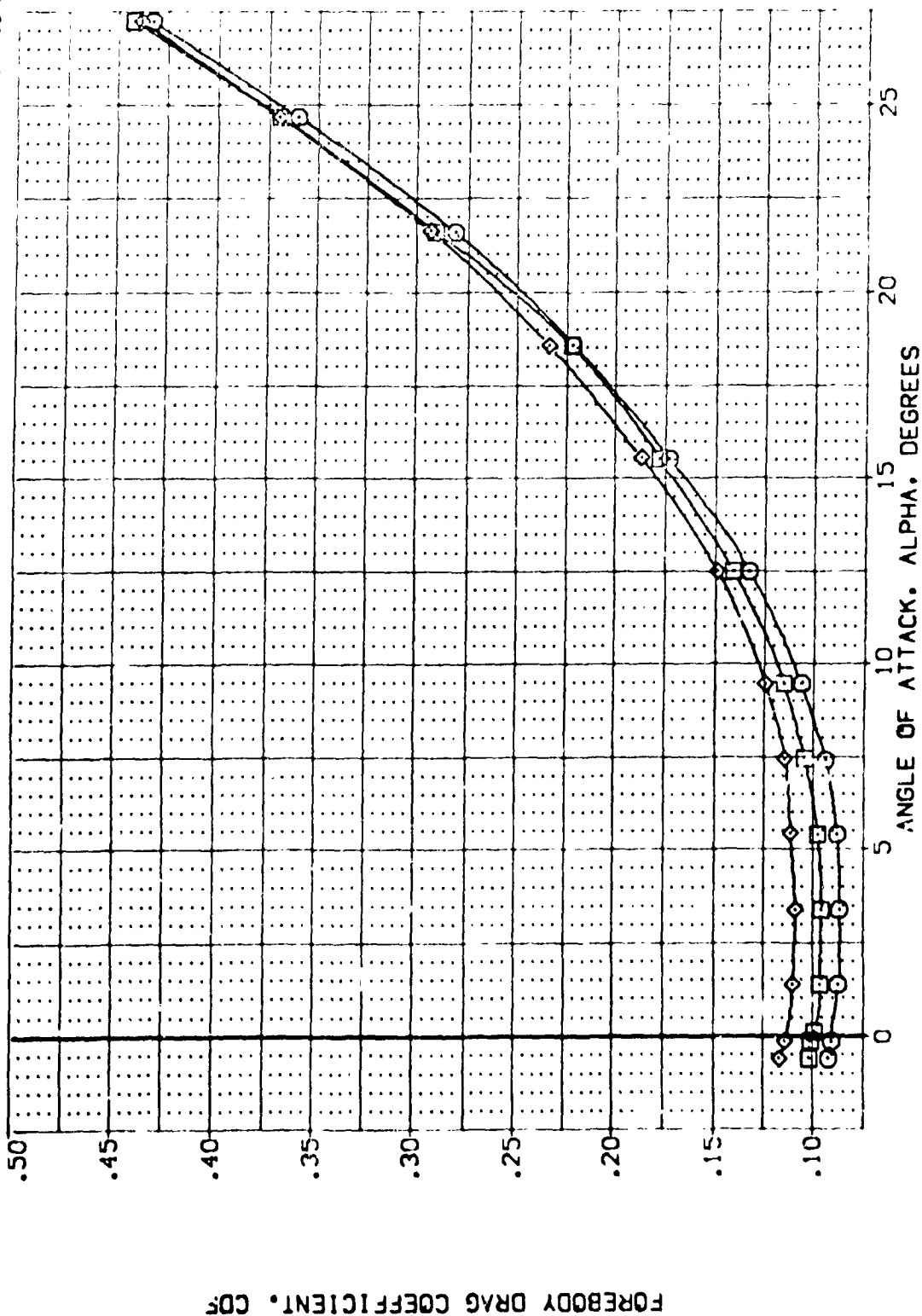
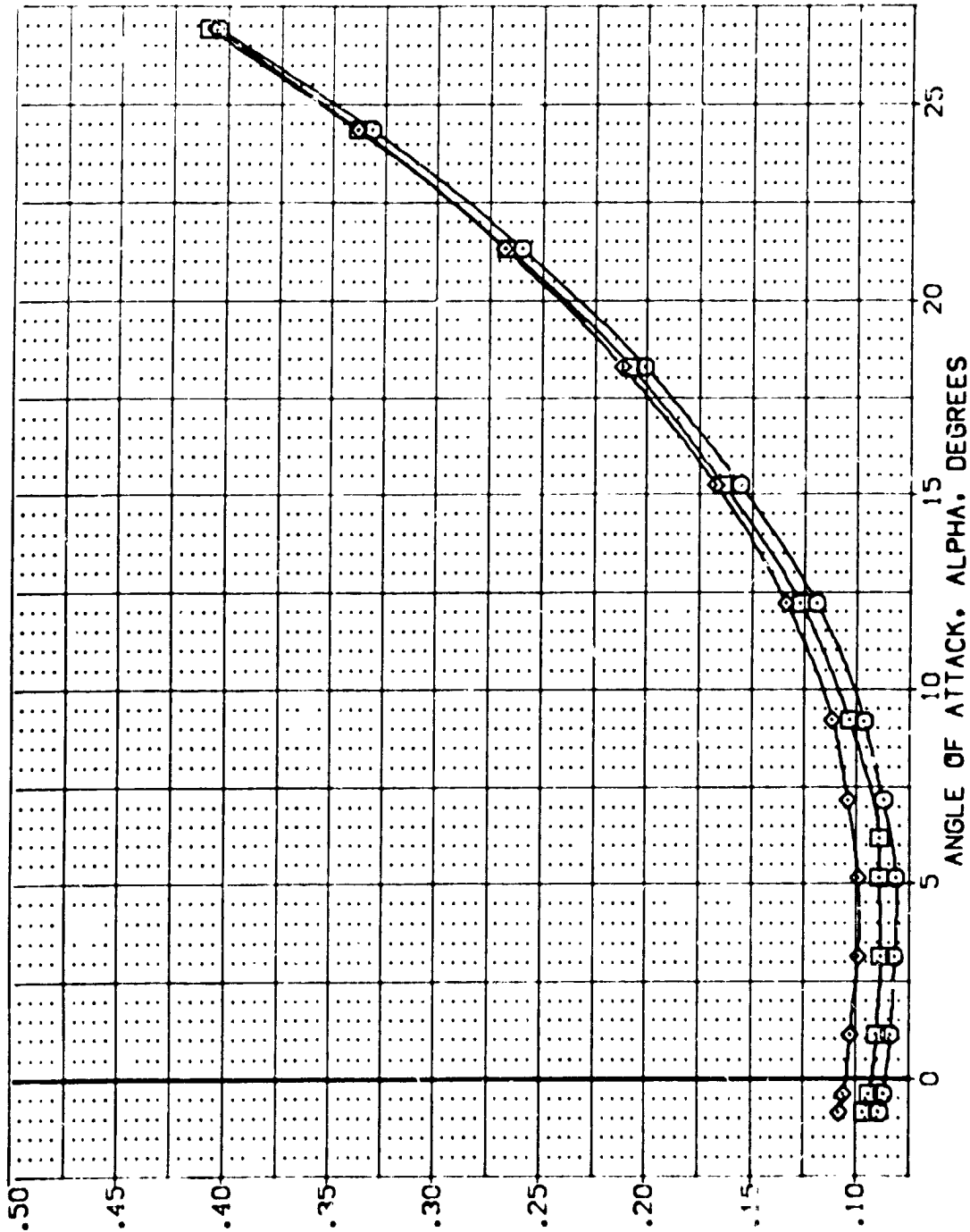


FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[TELO24]	ARC 87-747 OASIC B C H F VI V	.000	.000	-11.700	75.000	SREF 2.4210 SQ. FT.
[TELO11]	Arc 87-747 OASIC B C H F VI V	.000	.000	-11.700	55.000	LREF 14.2440 IN.
[TELO38]	ARC 87-747 OASIC B C H F VI V	.000	.000	-11.700	85.000	BREF 28.1004 IN.
						XREF 32.3010 IN.
						YREF 0.000 IN.
						ZREF 11.2500 IN.
						SCALE 0.000

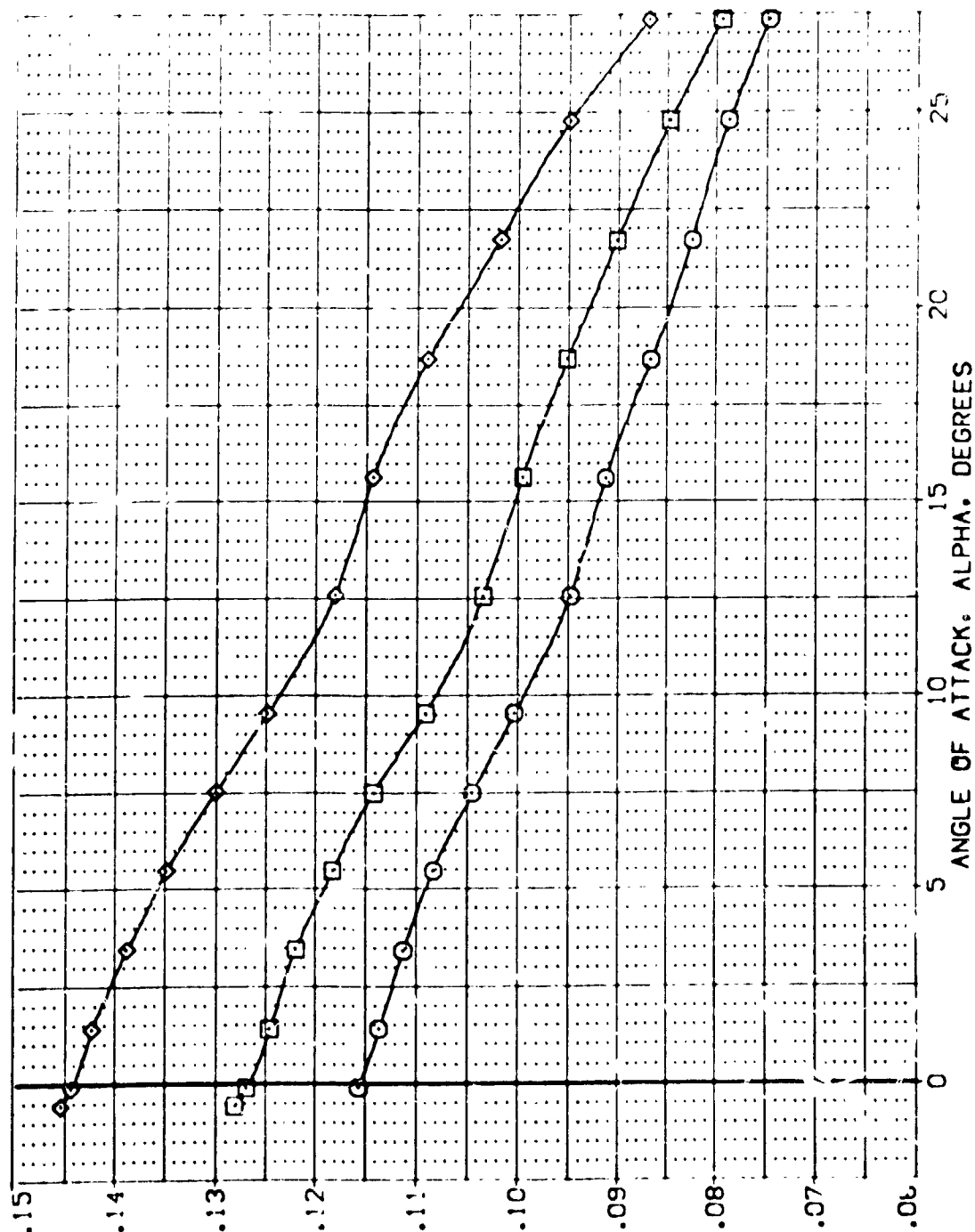


FOREBODY DRAG COEFFICIENT, CDF

FIG. 9 SPEEDBRAKE EFFECTS

(MACH = 3.50)

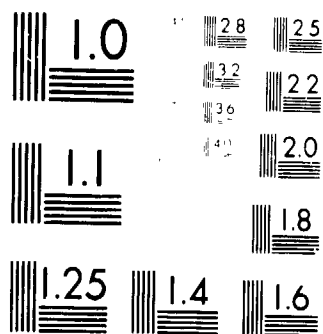
AXIAL FORCE COEFFICIENT, CA



**FIG. 9 SPEEDBRAKE EFFECTS**

$$(A)_{\text{MAC-H}} = 2.50$$

7434334 UNCLAS



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPODBK	REFERENCE INFORMATION
(TELO24)	ARC 87-747 OAS3C B C M F V1	.000	.000	11.700	25.000	SREF 2.4210 SQ.FT.
(TELO25)	ARC 87-747 OAS3C B C M F V1	.000	.000	11.700	55.000	LREF 14.2440
(TELO26)	ARC 87-747 OAS3C B C M F V1	.000	.000	11.700	85.000	BREF 28.1004
						XMRP 32.3010
						YMRP .0000
						ZMRP .0000
						SCALE 11.2500
						SCALE .0300

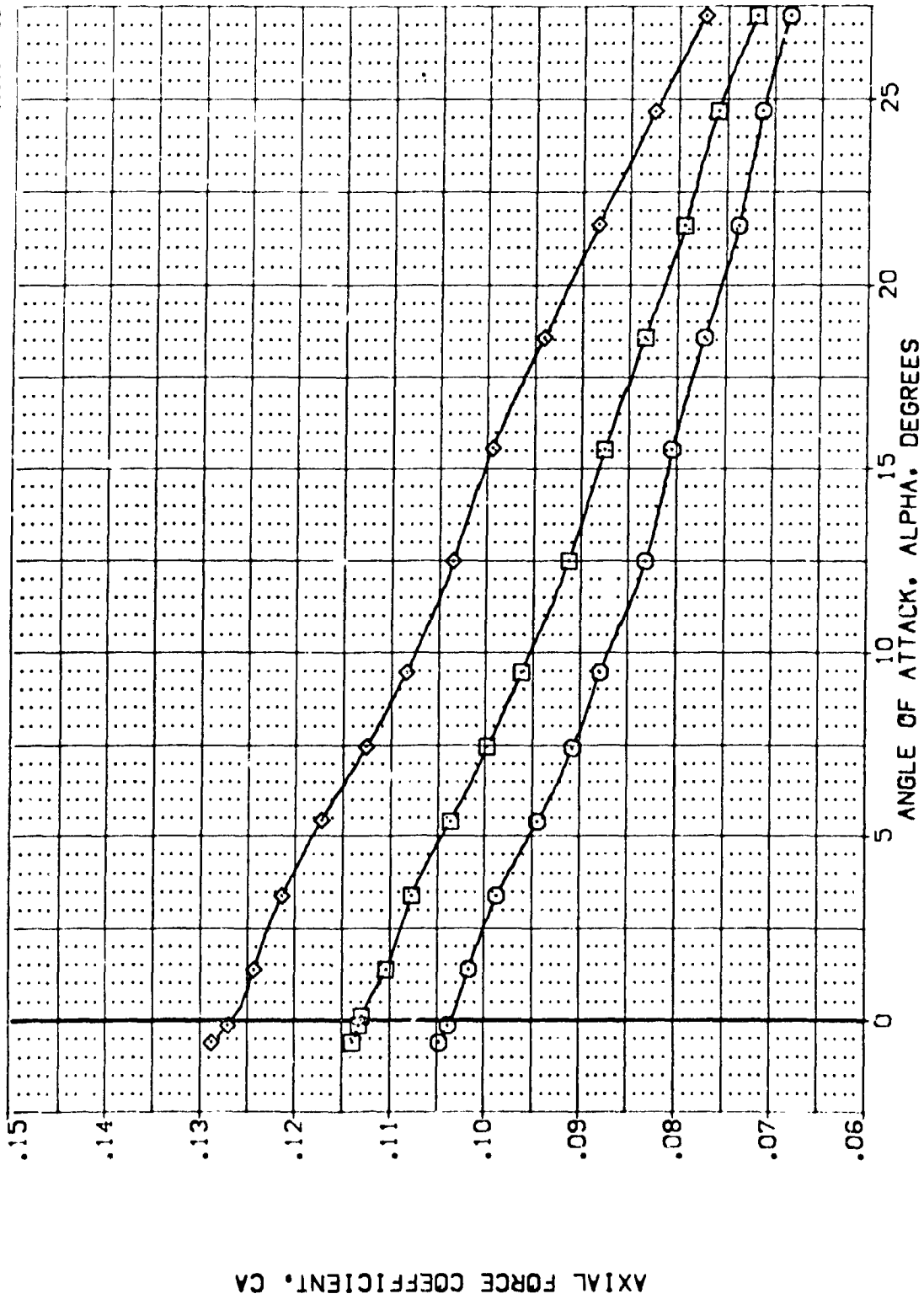
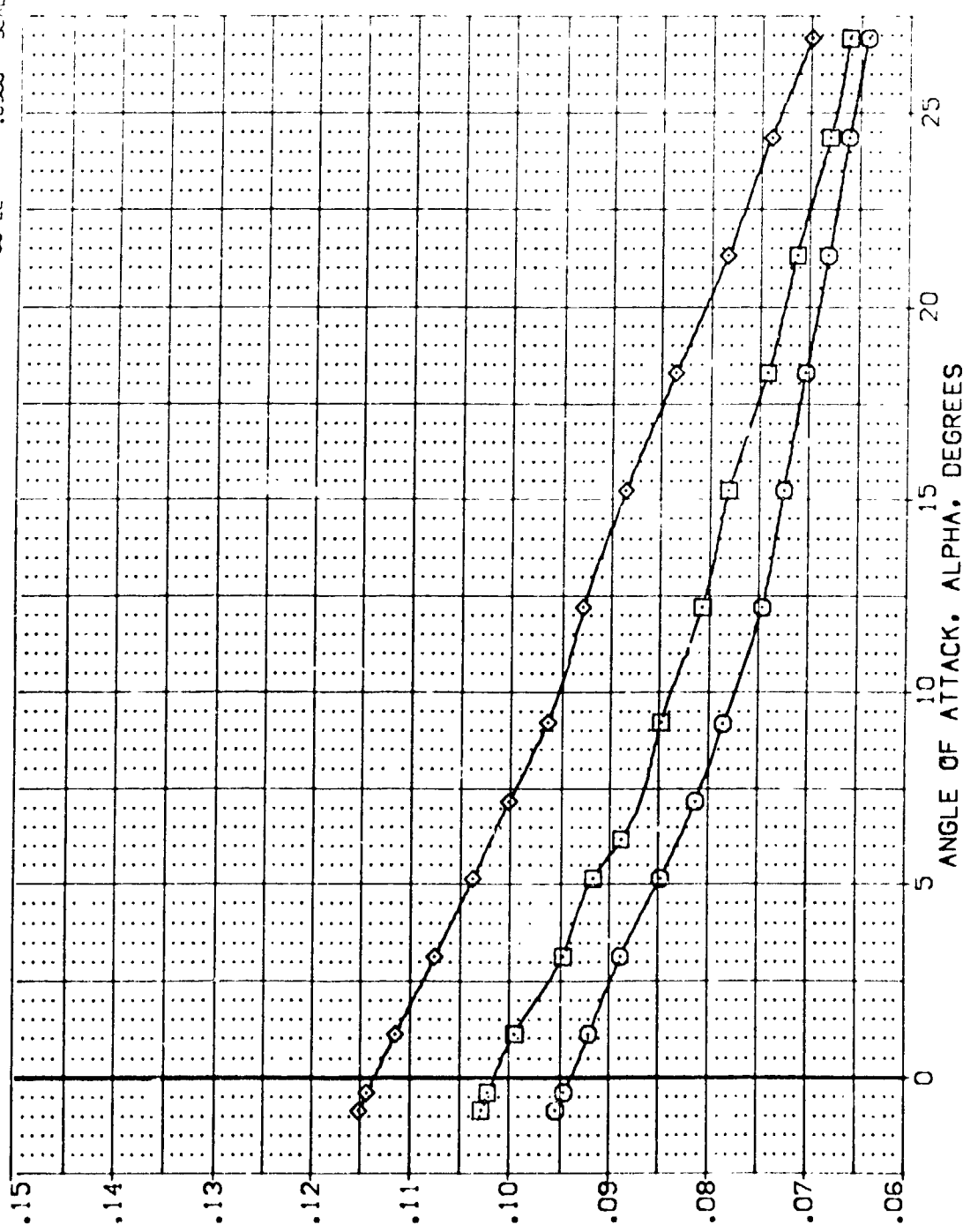


FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(TEL024)	ARC 87-747 DAS3C B C M F V1	.000	.000	-11.700	75.000	SREF 2.4210
(TEL011)	ARC 87-747 DAS3C B C M F V1	.000	.000	-11.700	55.000	LREF 14.2440
(TEL038)	ARC 87-747 DAS3C B C M F V1	.000	.000	-11.700	85.000	BREF 28.1004
						XMRD 32.3010
						YMRD 11.2300
						ZMRD 11.2300
						SCALE .0300



AXIAL FORCE COEFFICIENT, CA

FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPODBRK	REFERENCE INFORMATION
(*EL024)	ARC 87-747 OAS3C B C M F V I	.000	.000	-11.700	25.000	SREF 2.4213 SQ.FT.
(*EL031)	ARC 87-747 OAS3C B C M F V I	.000	.000	-11.700	55.000	LREF 14.2443
(*EL038)	ARC 87-747 OAS3C B C M F V I	.000	.000	-11.700	85.000	BREF 28.1004
						XMRP 32.3013
						ZMRP .0000
						SCALE 11.2500
						SCALE .0300

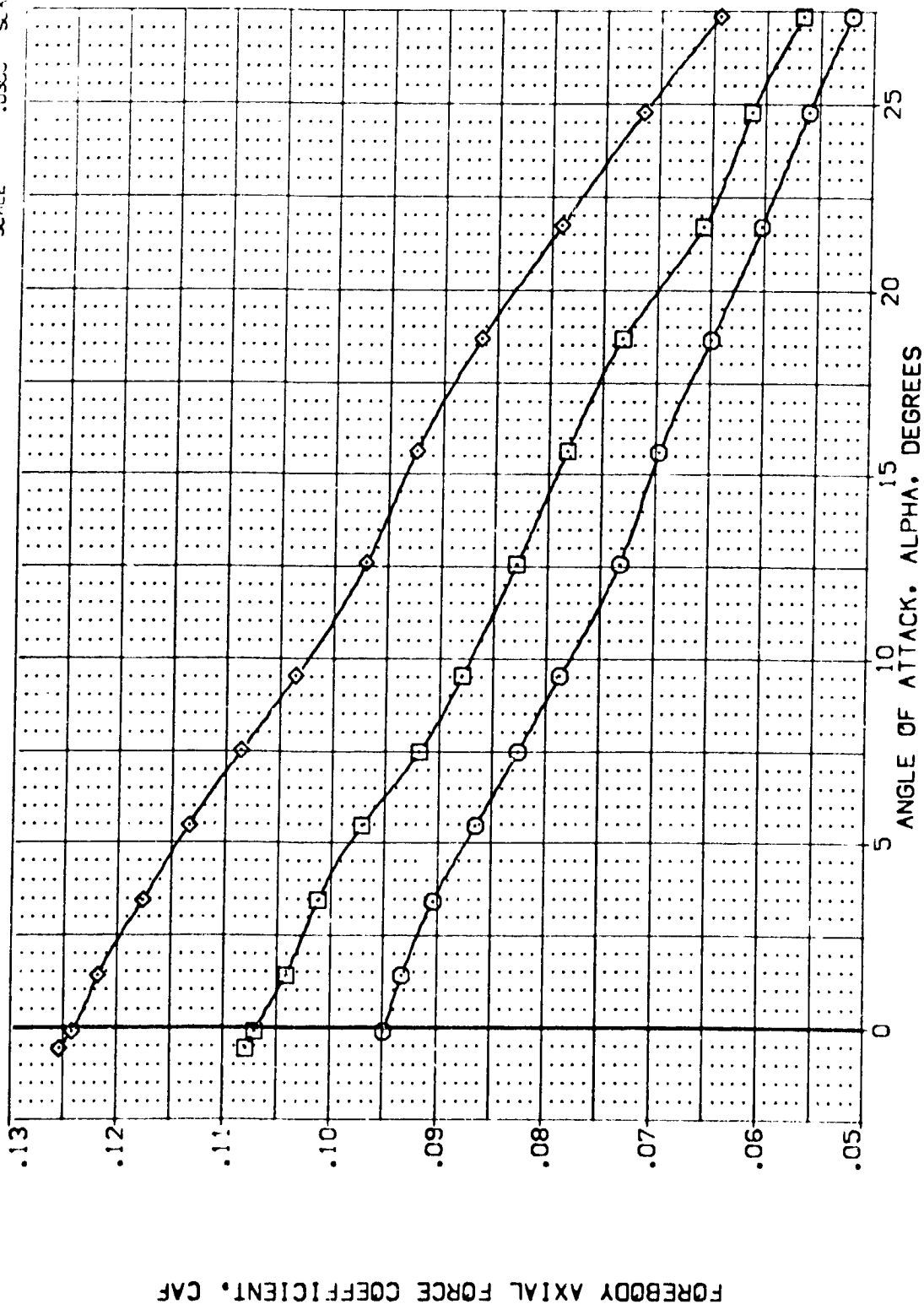


FIG. 9 SPEEDBRAKE EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL: (TEL024) (TEL011) (TEL038)

CONFIGURATION DESCRIPTION: ARC 87-747 DASSC B C M F V1 V NOT: RN/L ARC 87-747 DASSC B C M F V1 V NOT: RN/L ARC 87-747 DASSC B C M F V1 V NOT: RN/L

ELEVON: .000 .000 .000

AILERON: .000 .000 .000

BOFLAP: -11.700 -11.700 -11.700

SPOBRK: 25.000 55.000 85.000

REFERENCE INFORMATION: SREF 2.4710 SQ.FT. LREF 14.2440 IN. BREF 28.1004 IN. XMRD 32.3010 IN. YMRD 11.2000 IN. ZMRD 11.2000 IN. SCALE .0300 SCALE

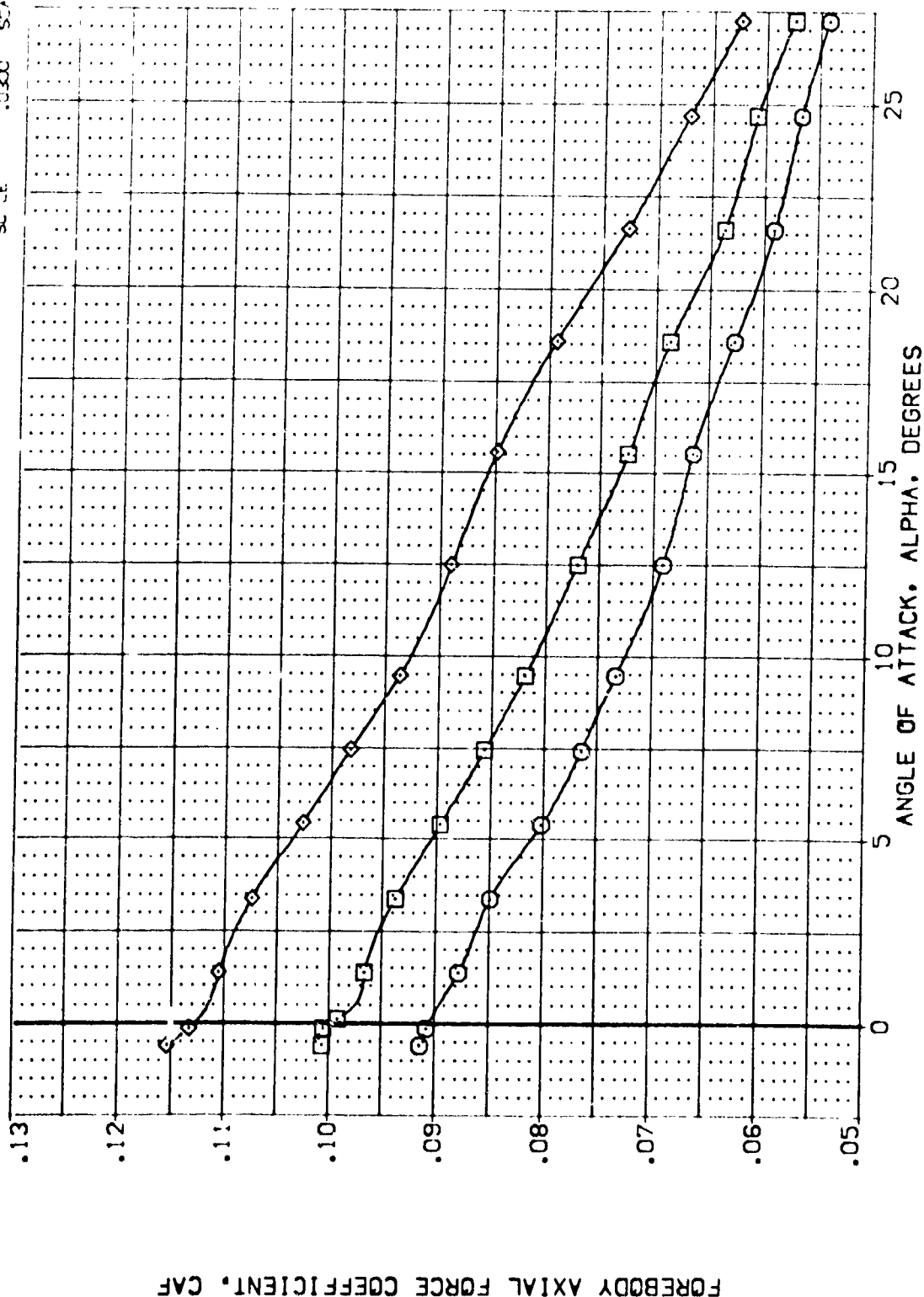


FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOG LAP	SPDBRK	REFERENCE INFORMATION
(TEL024)	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	25.000	SREF 2.4210 SQ. FT.
(TEL024)	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	55.000	LREF 14.2443
(TEL024)	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	85.000	BREF 28.1004
(TEL024)	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	85.000	XMRO 37.3013
						YMRO .0000
						ZMRO 11.2500
						SCALE .0300

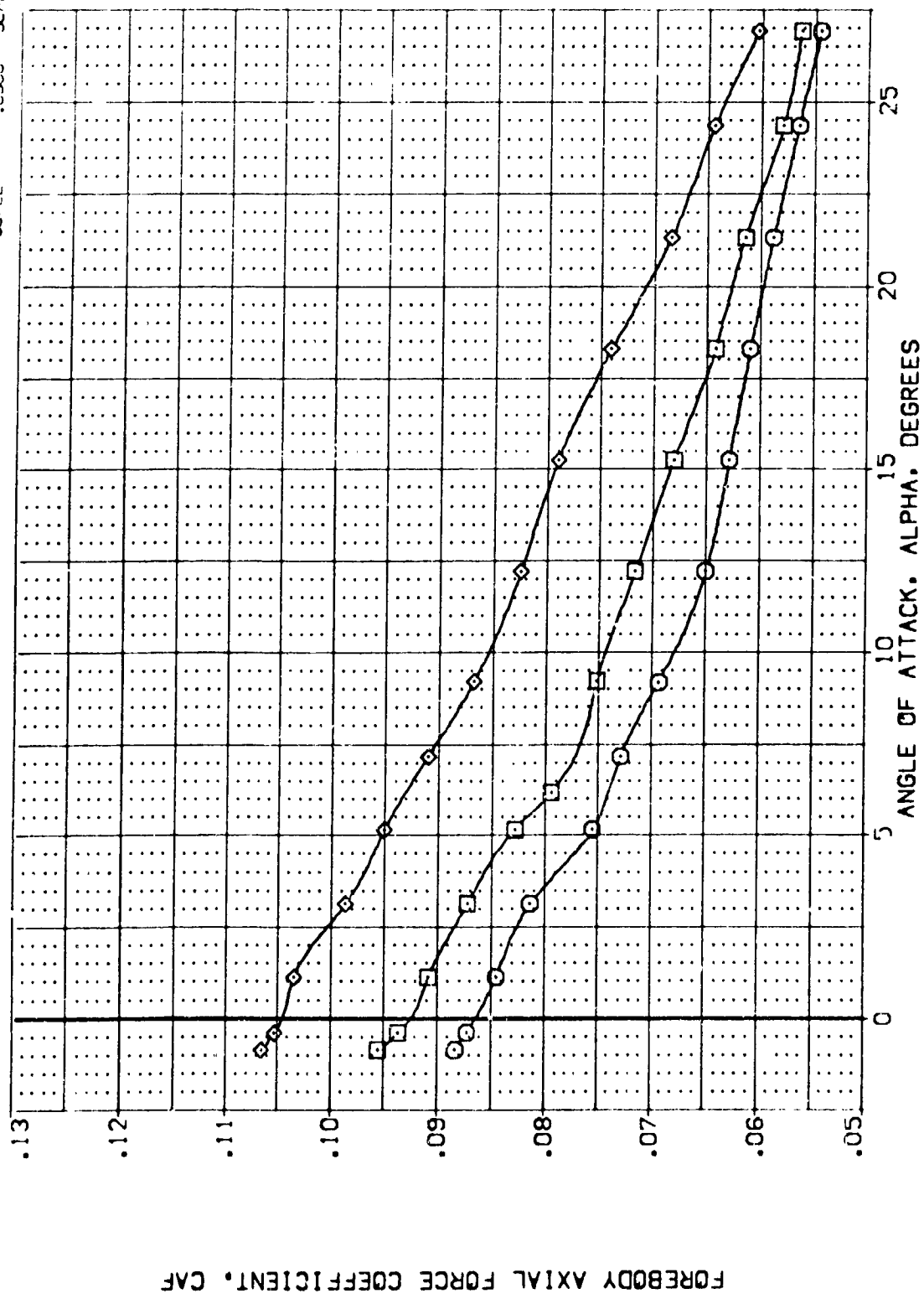


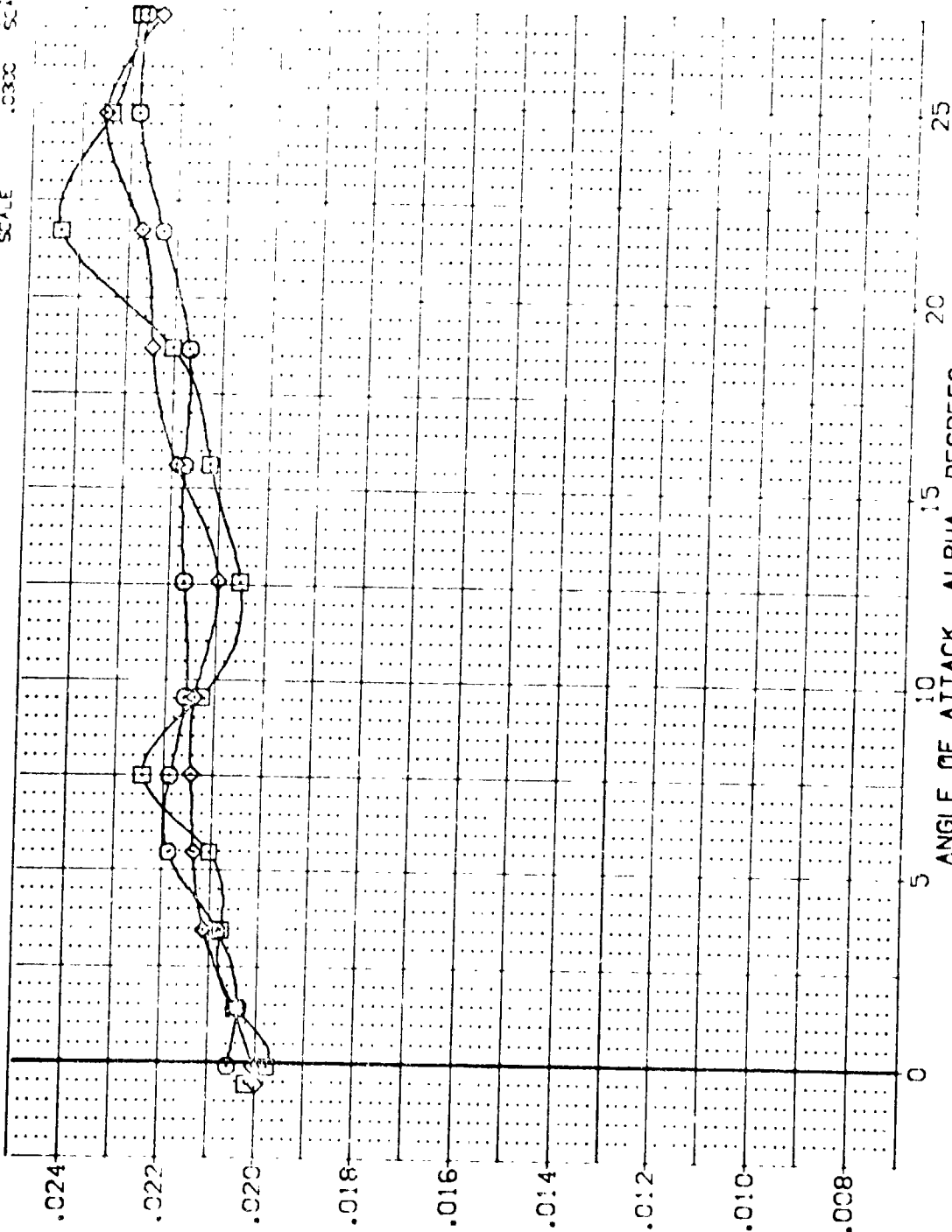
FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    AILERON    BOFLAP    SPEED    REFERENCE INFORMATION

(1)E024	ARC 87-747 DASSC B C M F VI V	.000	.000	-11.700	25.000	SREF	2.4210	SCAL
(1)E011	ARC 87-747 DASSC B C M F VI V	.000	.000	-11.700	55.000	LRPF	14.2440	
(1)E038	ARC 87-747 DASSC B C M F VI V	.000	.000	-11.700	85.000	BRPF	28.1024	
						XRPF	37.1024	
						YRPF	11.0000	
						ZRPF	11.0000	
						SCALE	11.0000	



BASE AXIAL FORCE COEFFICIENT, CAB

ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 9 SPEEDBRAKE EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL: CONFIGURATION DESCRIPTION

ARC	87-747	0A53C	B	C	M	F	V1	V	NON	RV/L	ELEVON	AIRLON	BDELAP	SPOBRK	REFERENCE INFORMATION	
TEL024	ARC	87-747	0A53C	B	C	M	F	V1	V	NON	RV/L	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
TEL011	ARC	87-747	0A53C	B	C	M	F	V1	V	NON	RV/L	.000	.000	-11.700	55.000	LREF 14.2440
TEL038	ARC	87-747	0A53C	B	C	M	F	V1	V	NON	RV/L	.000	.000	-11.700	85.000	BREF 18.1004
																YREF 32.3010
																ZREF .0000
																SCALE 11.7500
																SCALE .0300

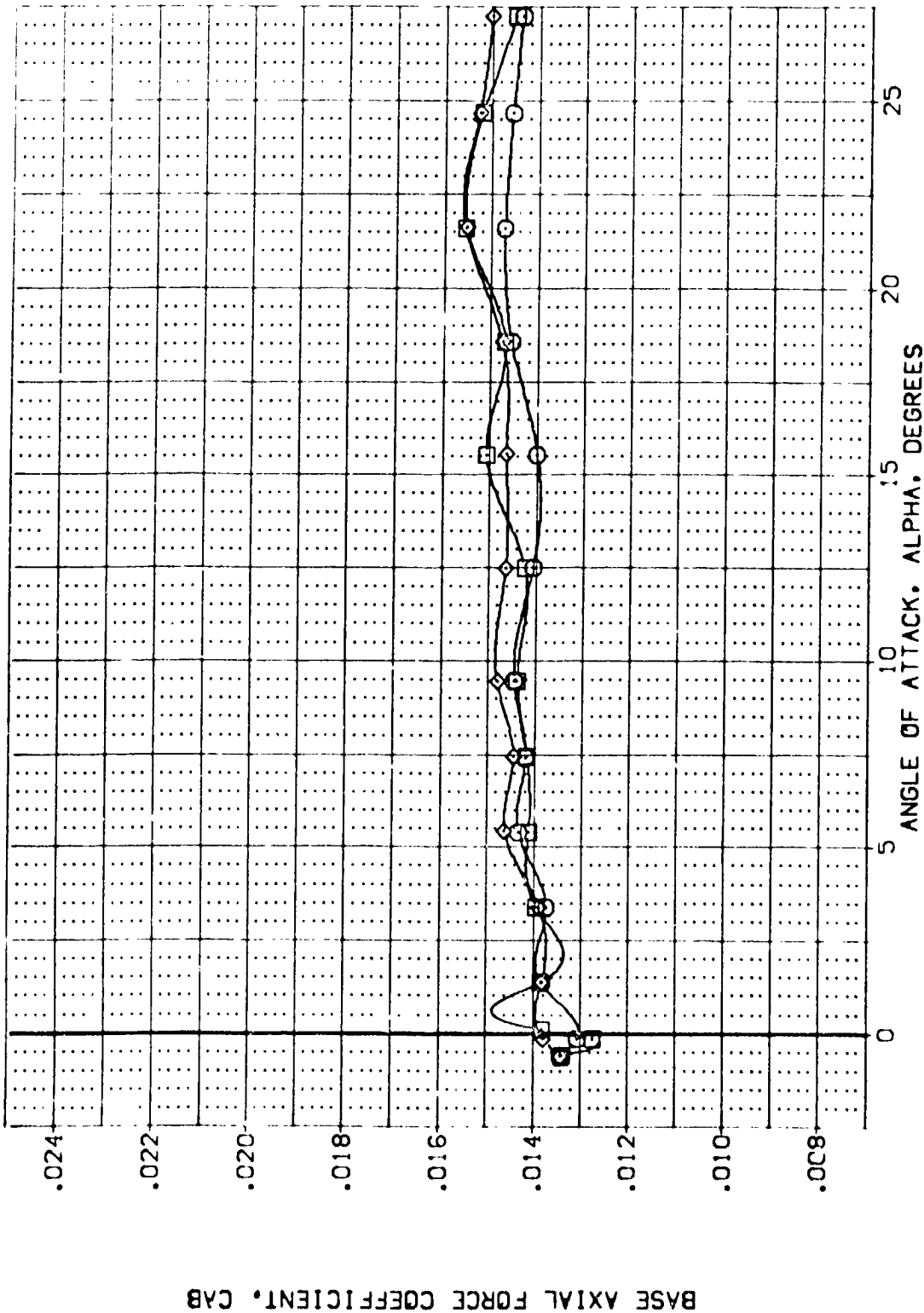


FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVON AILRON BOFLAP SPEEDBRK REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	BOFLAP	SPEEDBRK	REFERENCE INFORMATION
[TELO24]	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	25.000	SREF 2.4210 SCALE
[TELO11]	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	55.000	LBREF 14.3410 SCALE
[TELC38]	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	85.000	BRREF 28.1004 SCALE
						XREF 37.3010 SCALE
						YREF .0000 SCALE
						ZREF .0000 SCALE
						SCALE .0000 SCALE

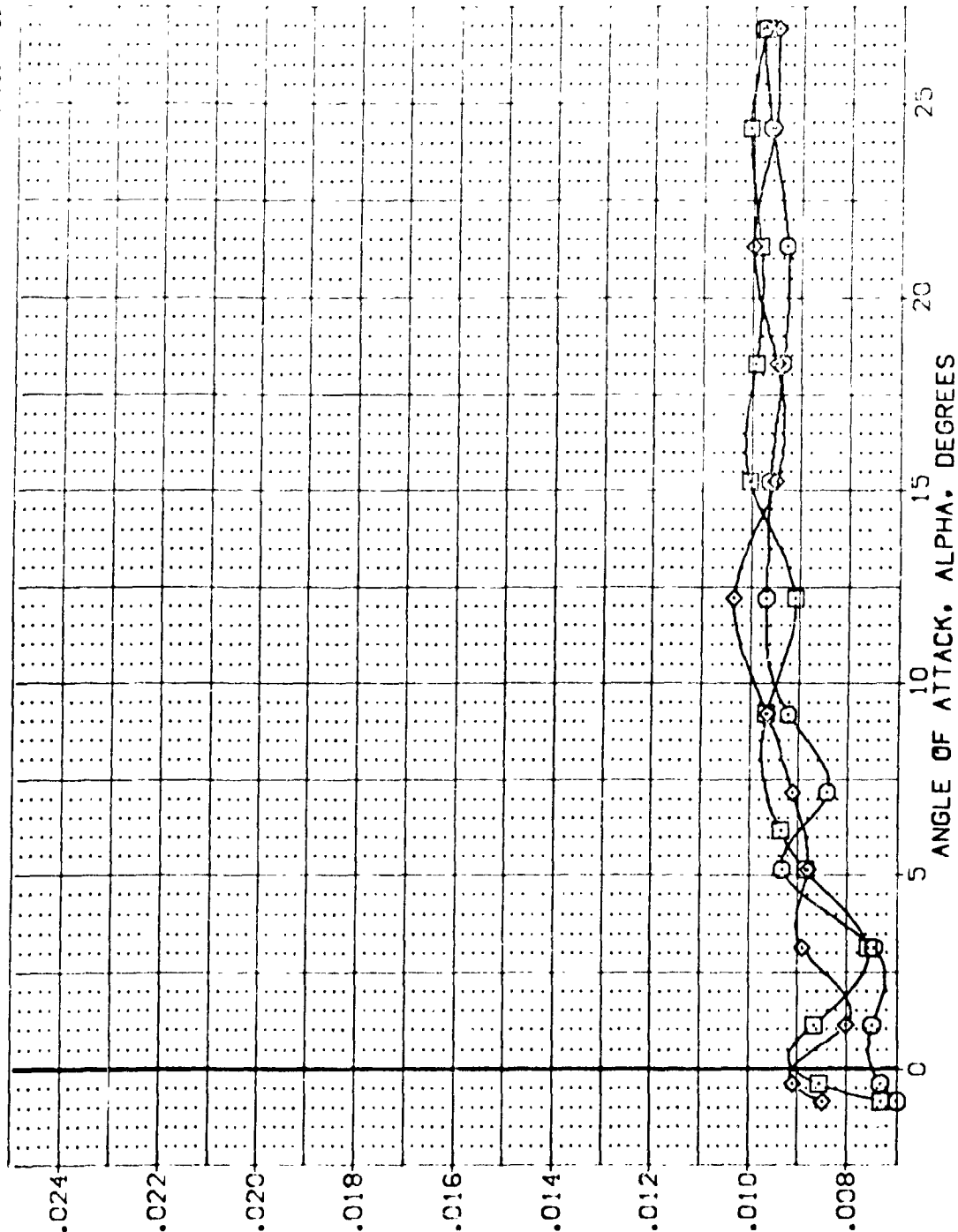


FIG. 9 SPEEDBRAKE EFFECTS

COMACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEV	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(1) (0.24)	ARC 87-747 BASIC B C M F V	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(2) (0.01)	ARC 87-747 BASIC B C M F V	.000	.000	-11.700	55.000	LREF 14.2440
(3) (0.08)	ARC 87-747 BASIC B C M F V	.000	.000	-11.700	85.000	BREF 28.1004
						XMRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

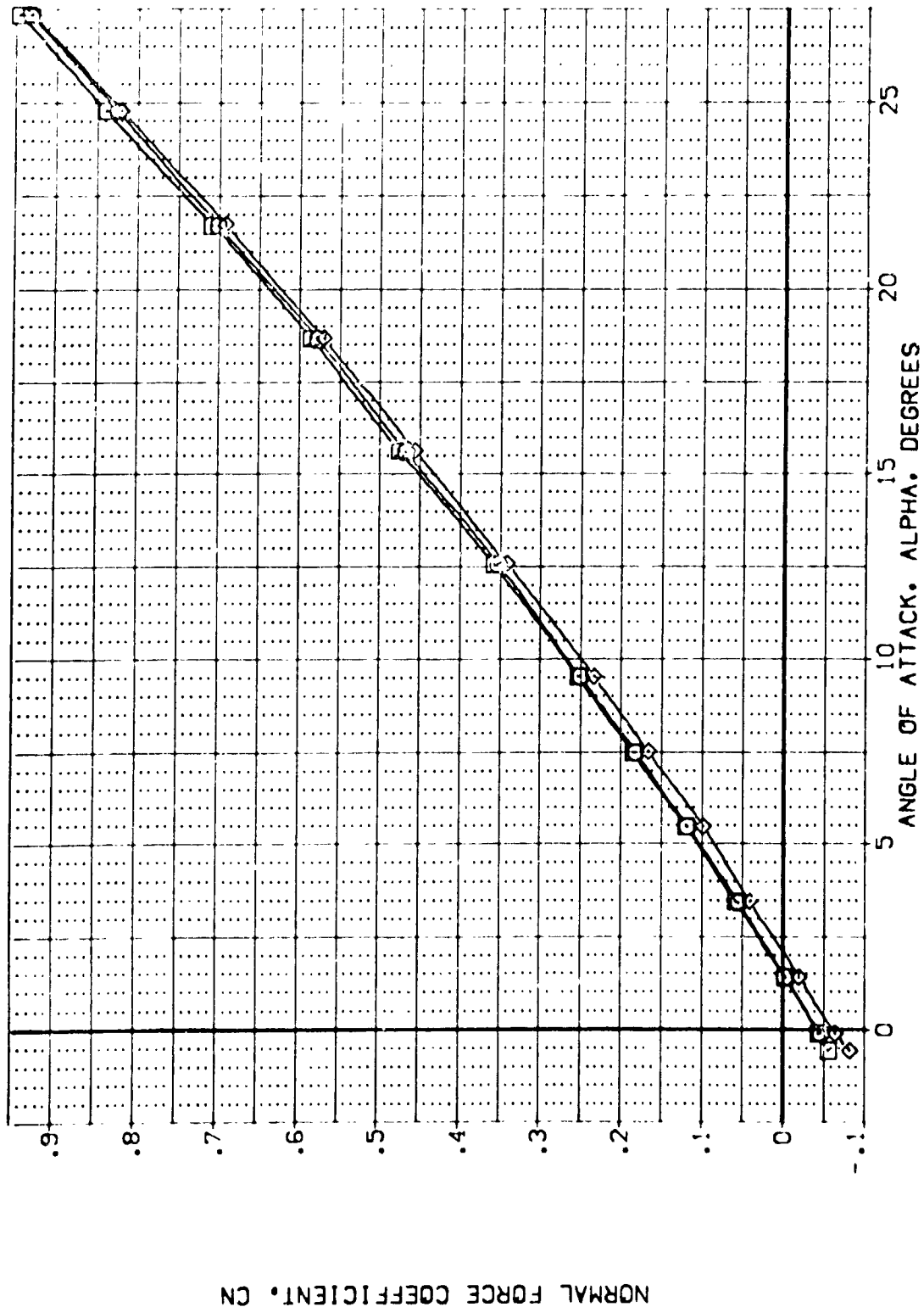


FIG. 9 SPEEDBRAKE EFFECTS

MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPODBRK	REFERENCE INFORMATION
(TEL074)	ARC 87-747 OAS3C B C H F VI V	.000	.000	-11.700	75.000	SREF 2.4213 SC.57.
(TEL075)	ARC 87-747 OAS3C B C H F VI V	.000	.000	-11.700	55.000	LREF 14.2443
(TEL038)	ARC 87-747 OAS3C B C H F VI V	.000	.000	-11.700	65.000	BREF 28.1004
						XMDO 37.3013
						YMDO 22.000
						ZMDO 11.2000
						SCALE .0003

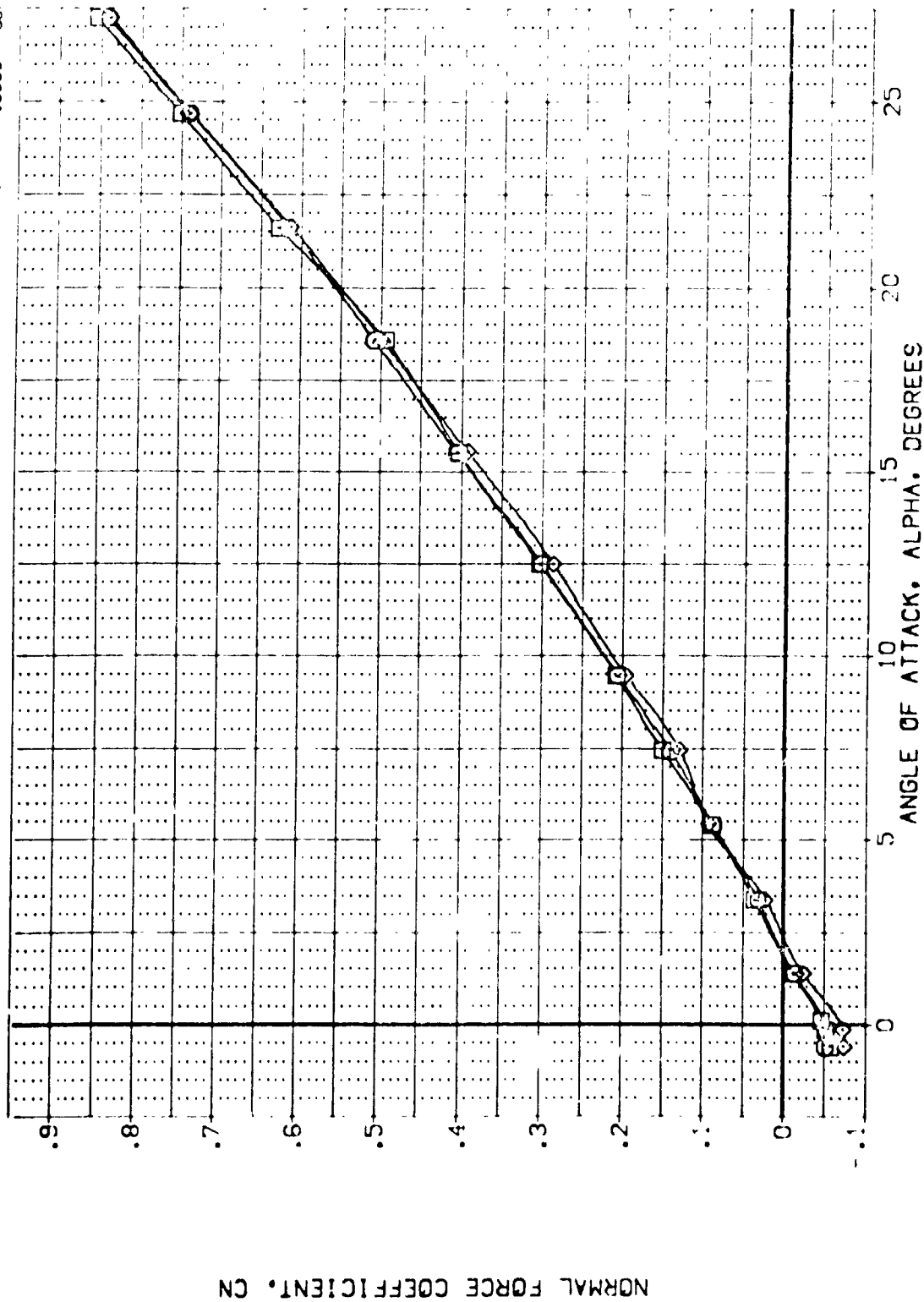


FIG. 9 SPEEDBRAKE EFFECTS

(B)MAC = 3.00

DATA SET SYMBOL  
 (TE-024)  
 (TE-011)  
 (TE-038)

CONFIGURATION DESCRIPTION  
 ARC 87-747 D453C B C M F V  
 ARC 87-747 D453C B C M F V  
 ARC 87-747 D453C B C M F V

ELEVATION  
 .000  
 .000  
 .000

AIRLIFT  
 .000  
 .000  
 .000

SPOBRK  
 25.000  
 55.000  
 85.000

REFERENCE INFORMATION  
 SREF 2.4210 SC.FT.  
 LREF 14.2460  
 BREF 28.1000  
 YREF 32.3010  
 ZREF .0000  
 SCALE 11.2900  
 SCALE .0300

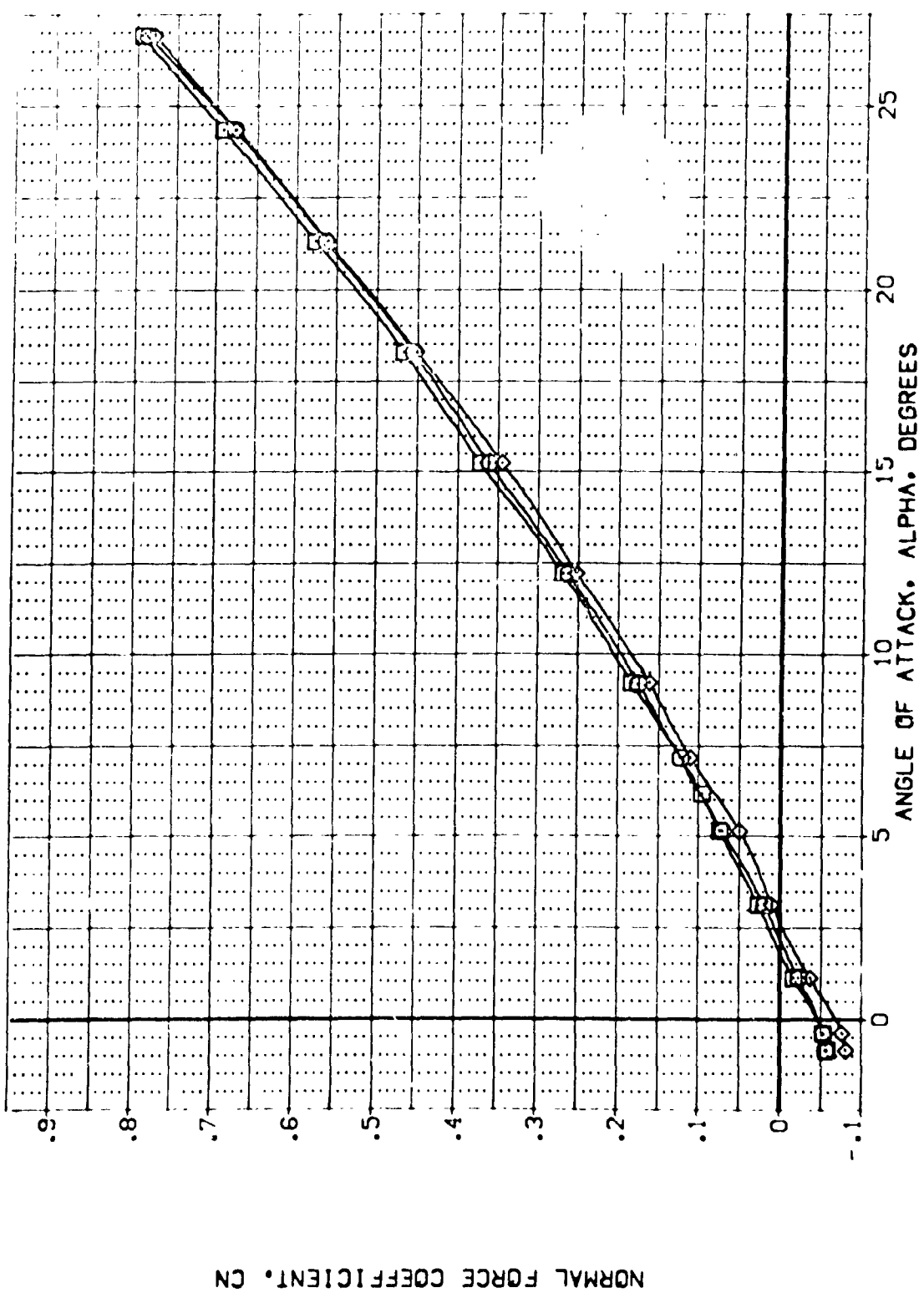


FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(TEL024)	ARC 87-747 BASC B C M F V	.000	.000	-11.700	25.000	SPREF 2.4210 50.00
(TEL031)	ARC 87-747 BASC B C M F V	.000	.000	-11.700	55.000	LBREF 14.5540
(TEL032)	ARC 87-747 BASC B C M F V	.000	.000	-11.700	85.000	LBREF 28.1004
						AMREF 32.5000
						YREF 11.5000
						ZREF 11.5000
						SCALE 10.000

PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFW

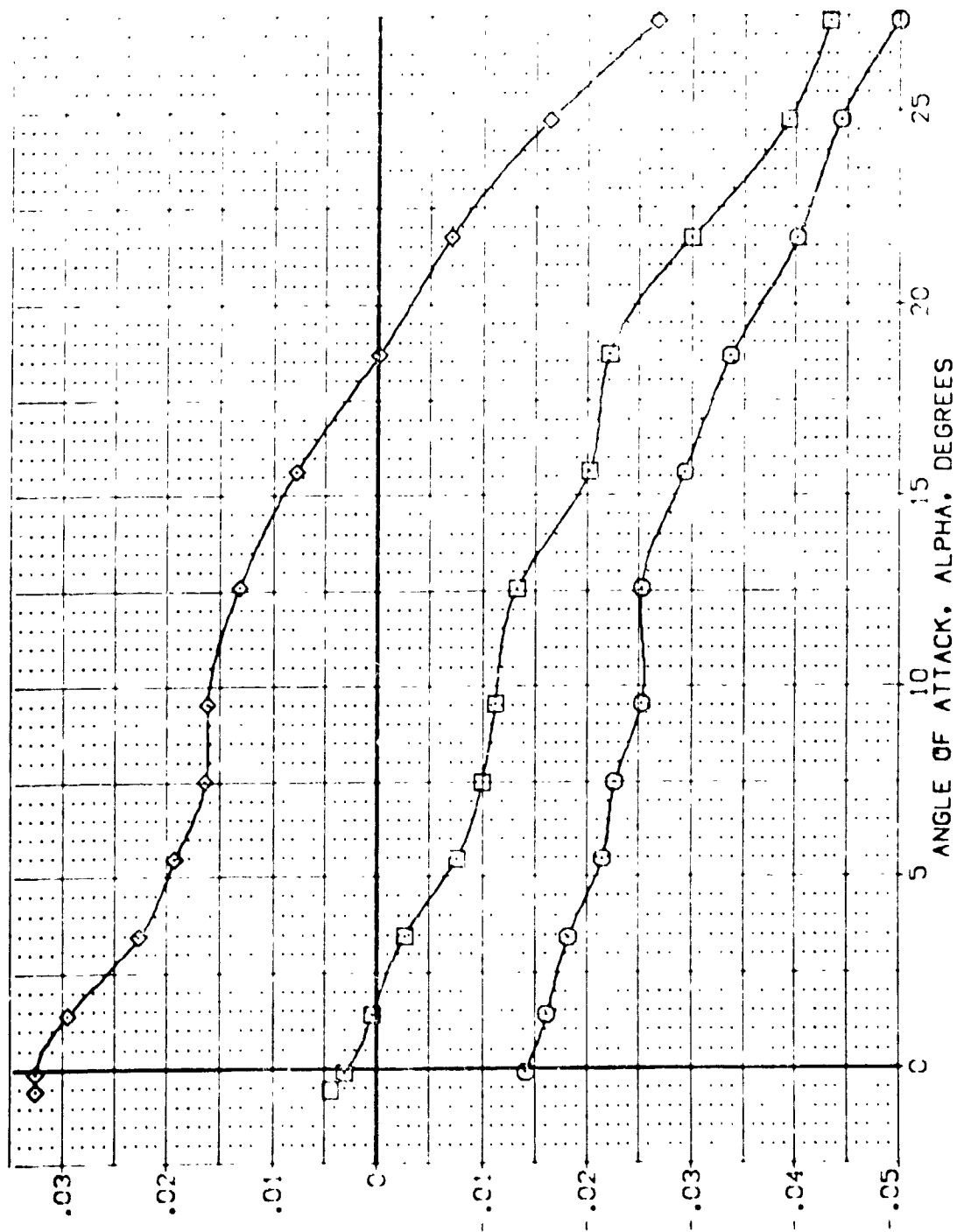


FIG. 9 SPEEDBRAKE EFFECTS

(A) VACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPODBRK	REFERENCE INFORMATION
TE-004	ARC 87-747 BAS3C B C M F V	.000	.000	11.700	75.000	2.4210 SCAL
TE-005	ARC 87-747 BAS3C B C M F V	.000	.000	11.700	55.000	14.0440 SCAL
TE-006	ARC 87-747 BAS3C B C M F V	.000	.000	11.700	85.000	32.3010 SCAL
TE-007						11.7000 SCAL
TE-008						11.7000 SCAL
TE-009						11.7000 SCAL
TE-010						11.7000 SCAL
TE-011						11.7000 SCAL
TE-012						11.7000 SCAL
TE-013						11.7000 SCAL
TE-014						11.7000 SCAL
TE-015						11.7000 SCAL
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TE-099						11.7000 SCAL
TE-100						11.7000 SCAL

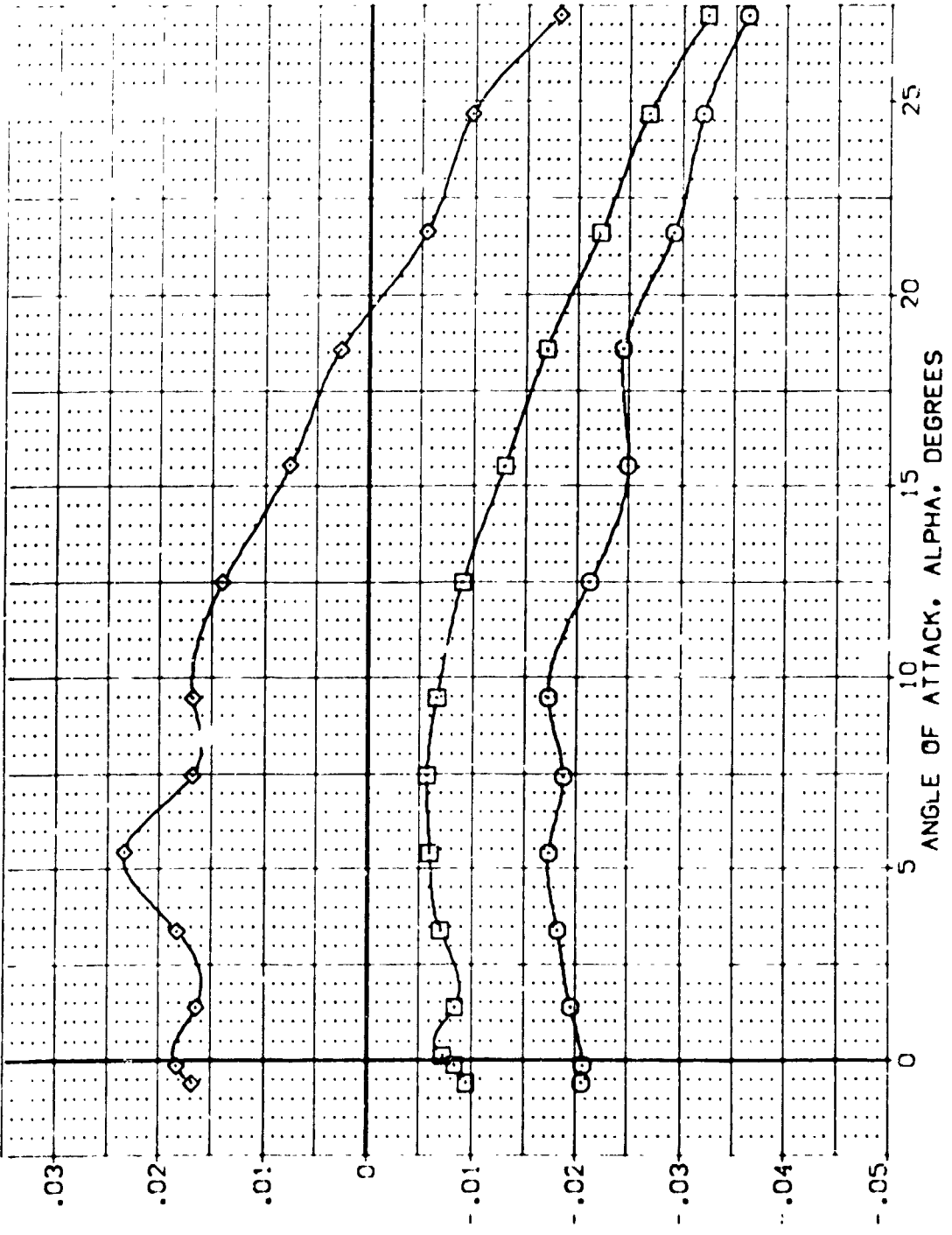


FIG. 9 SPEEDBRAKE EFFECTS  
(B)MAC = 3.00



DATA SET SYMBOL: [TELO24] [TELO11] [TELO38]

CONFIGURATION DESCRIPTION: ARC 87-747 BAS3C B C M F V1 V NOM: RN/L ARC 87-747 BAS3C B C M F V1 V NOM: RN/L ARC 87-747 BAS3C B C M F V1 V NOM: RN/L

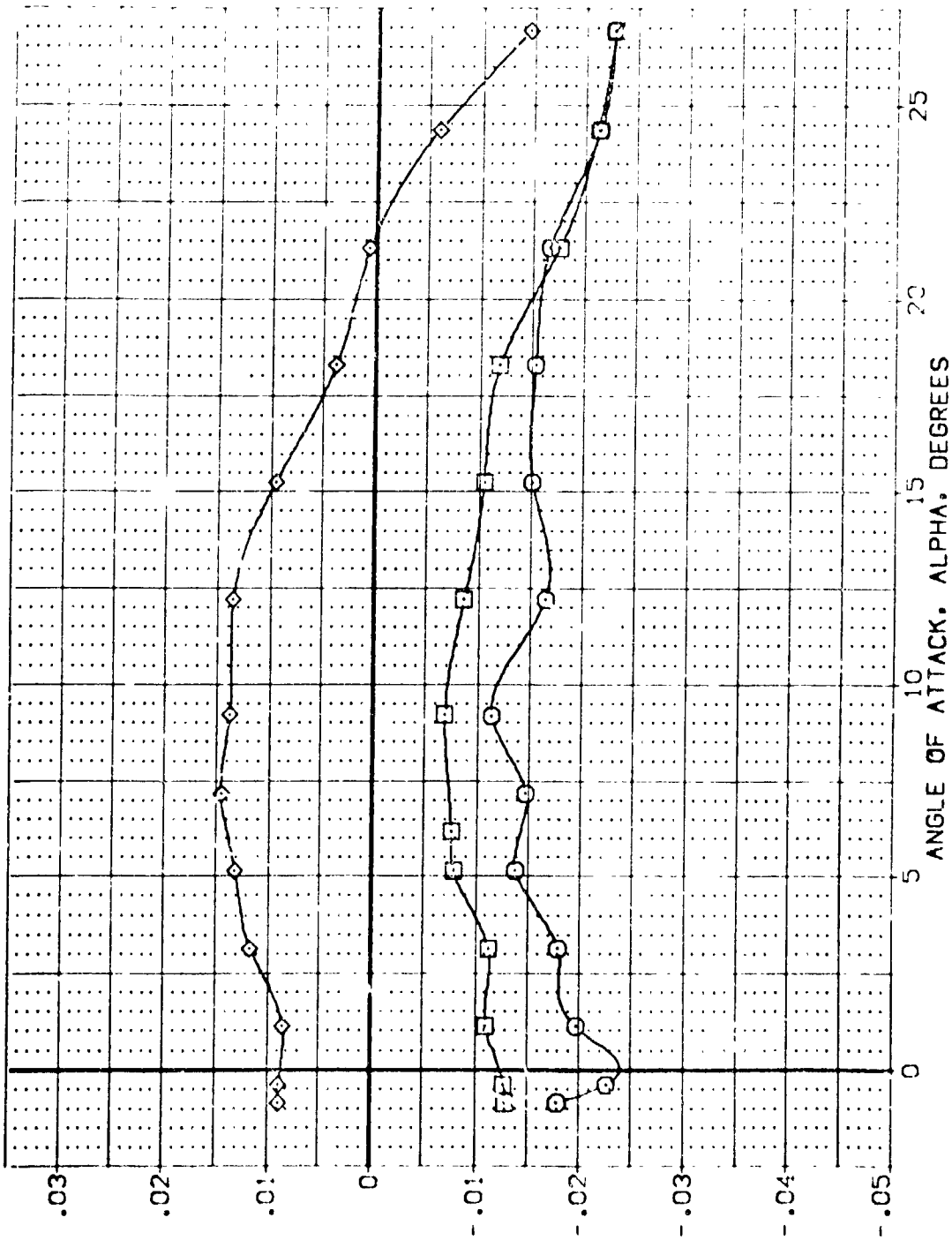
ELEVON: .000 .000 .000

AILERON: .000 .000 .000

BOFLAP: .000 .000 .000

SPOBRK: 23.000 55.000 85.000

REFERENCE INFORMATION: SREF: 2.4210 50.0 LREF: 14.2440 10.0 BREF: 28.1004 10.0 XREF: 32.3010 10.0 YREF: .0000 10.0 ZREF: 11.2500 10.0 SCALE: .0300



PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFW

FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPEED	REFERENCE INFORMATION
(TEL024)	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(TEL011)	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	55.000	LREF 14.2440 IN.
(TEL038)	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	85.000	BREF 28.1004 IN.
						YMRD 32.3000 IN.
						YMRD 11.2300 IN.
						ZMRD 1.0300 IN.
						SCALE

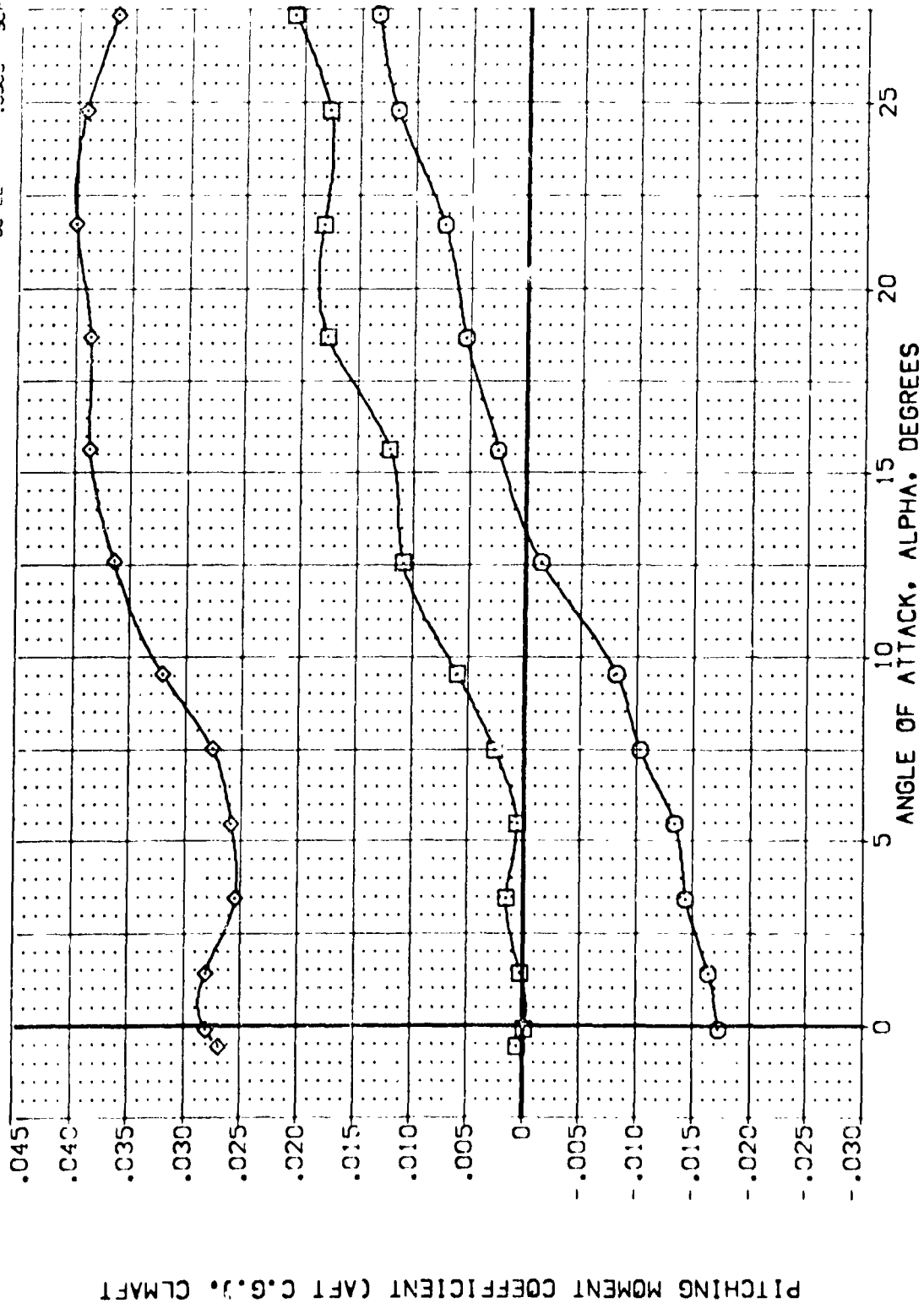


FIG. 9 SPEEDBRAKE EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL: (TEL024) (TEL011) (TEL038)

CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C H F VI V NOT: RV/L ARC 87-747 BASIC B C H F VI V NOT: RV/L ARC 87-747 BASIC B C H F VI V NOT: RV/L

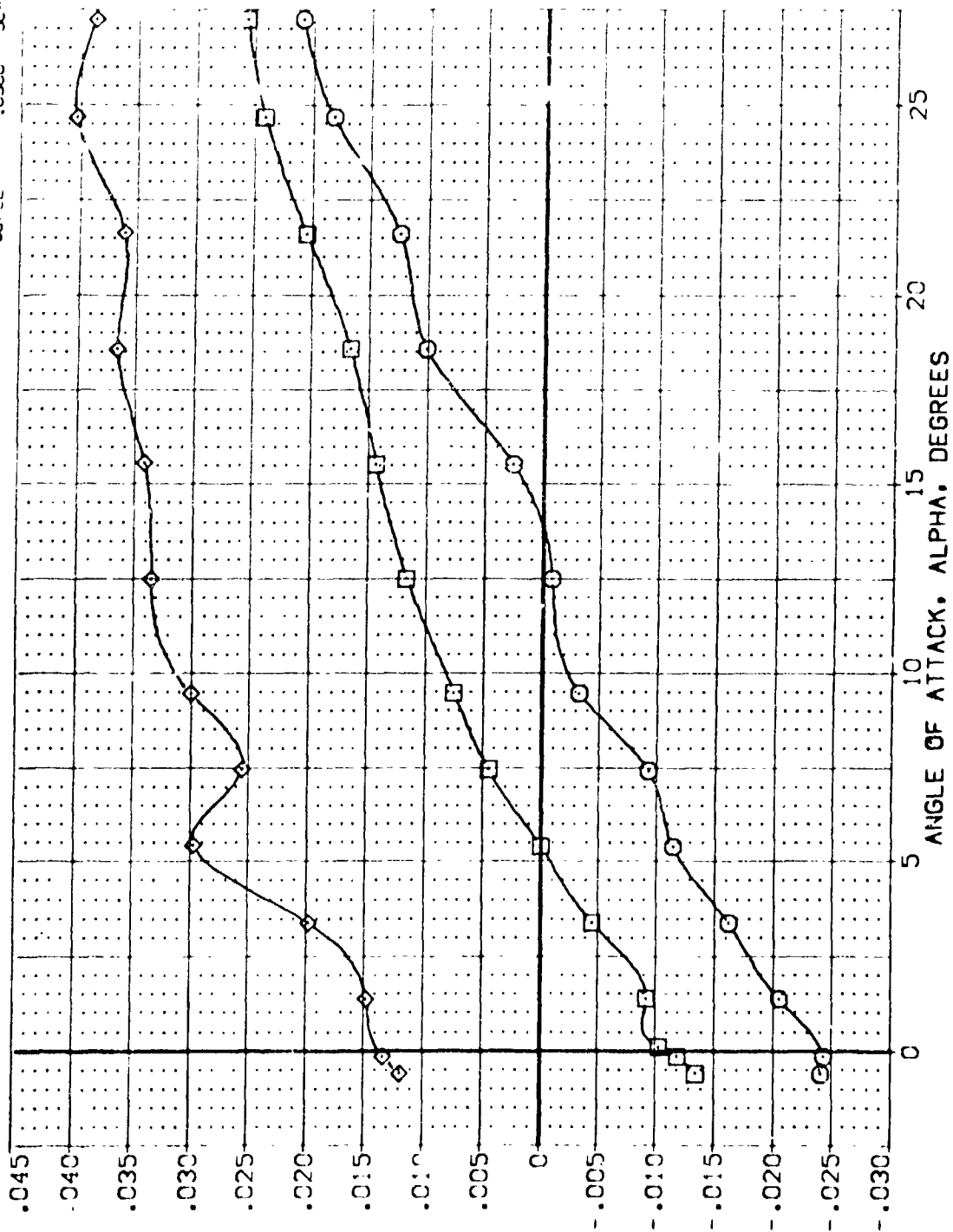
ELEVON: .000 .000 .000

AIRLON: .000 .000 .000

BOFLAP: -11.700 -11.700 -11.700

SPOBRK: 25.000 55.000 85.000

REFERENCE INFORMATION: SREF: 2.4210 SQ.FT. PRE: 14.2440 PRE: 28.1004 PRE: 32.3000 PRE: 11.7000 SCALE: 1.0000



PITCHING MOMENT COEFFICIENT (CA1 C.G.), CLMA1

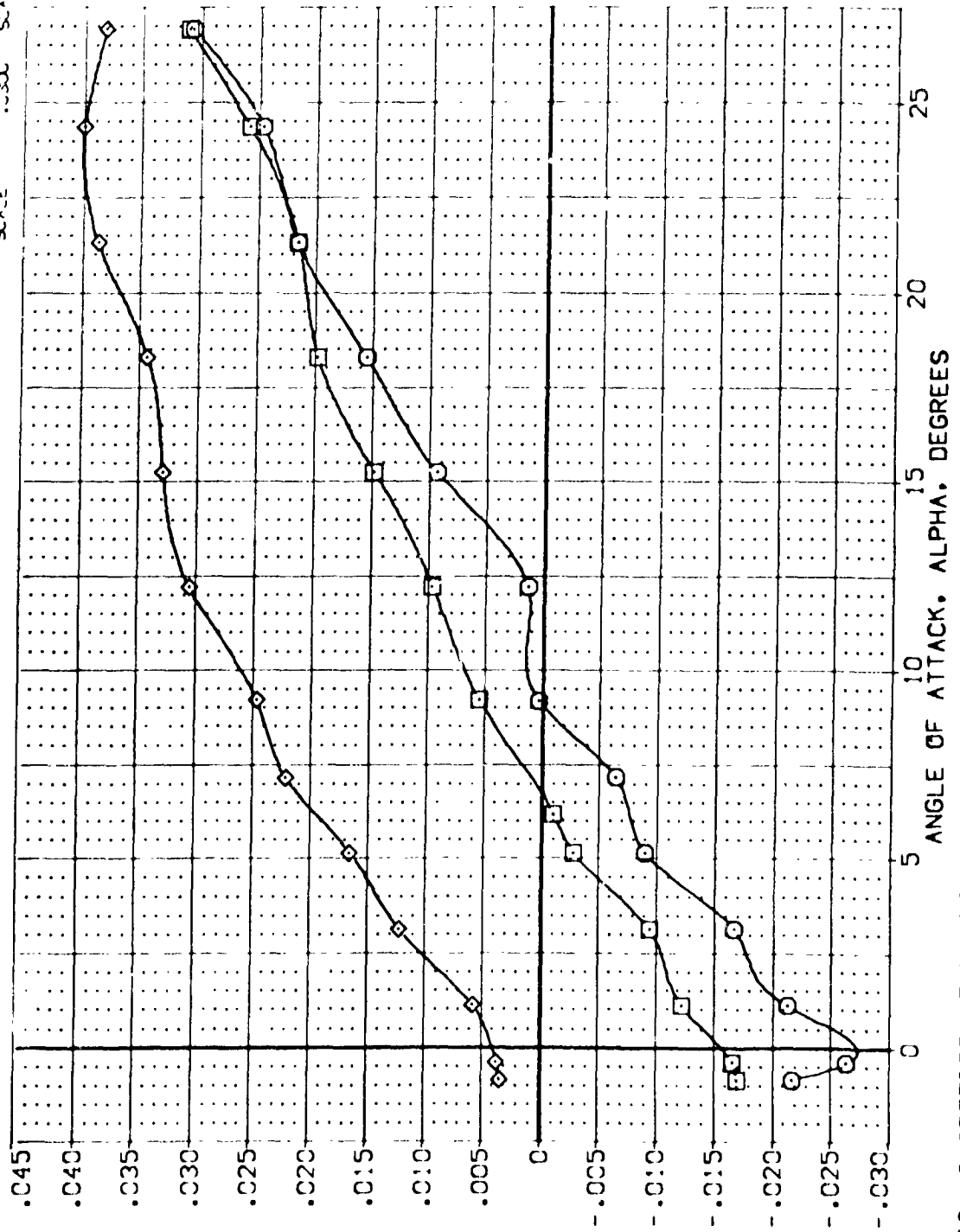
FIG. 9 SPEEDBRAKE EFFECTS

(B) \*ACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION NOM. RV/L  
 (TE-024) APC 87-747 CAS3C B C M F VI V  
 (TE-011) APC 87-747 CAS3C B C M F VI V  
 (TE-038) APC 87-747 CAS3C B C M F VI V

ELEVON AILRON BOELAP SPEEDBRK  
 .000 .000 .000 25.000  
 .000 .000 .000 55.000  
 .000 .000 .000 85.000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.2440  
 BREF 28.1004  
 XMRP 32.3010  
 YMRP .0000  
 ZMRP .0000  
 SCALE 11.2500 SCALE

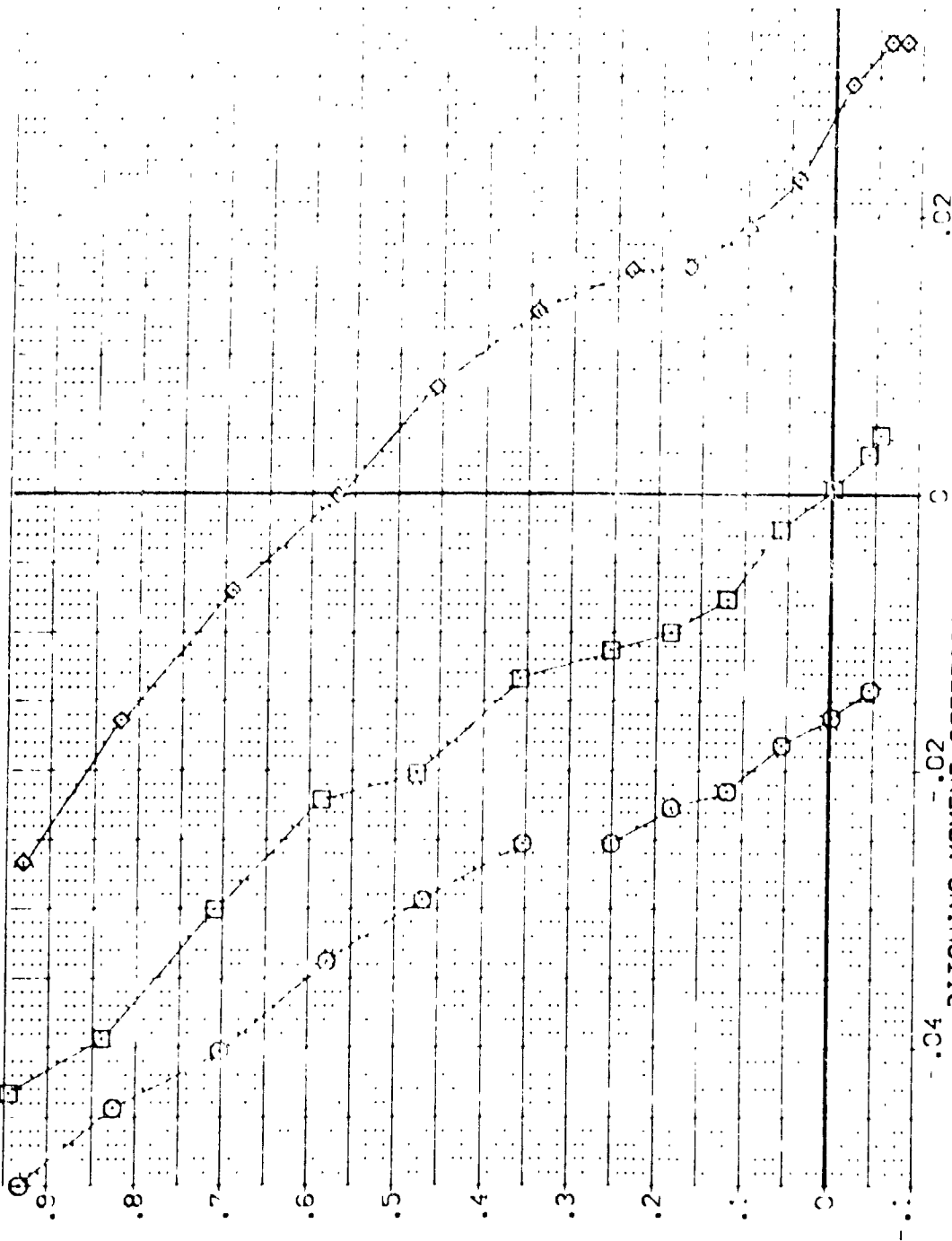


PITCHING MOMENT COEFFICIENT (Cm) C.G., CLMAFT

FIG. 9 SPEEDBRAKE EFFECTS

(C)MAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	EOF LAP	SPEED	REFERENCE INFORMATION
TEL024	ARC 87-747 0453C B C M F V	.000	.000	.700	25.000	2.4210
TEL031	ARC 87-747 0453C B C M F V	.000	.000	.700	55.000	14.2440
TEL038	ARC 87-747 0453C B C M F V	.000	.000	.700	85.000	28.1300
						32.5000
						11.7500
						10.500
						SCALE



NORMAL FORCE COEFFICIENT, CN

PITCHING MOMENT COEFFICIENT (FWD C.G.), CM<sub>FW</sub>

FIG. 9 SPEEDBRAKE EFFECTS

(MACH = 2.50)

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    AILERON    BOFLAP    SPODBK    REFERENCE INFORMATION

SYMBOL	DESCRIPTION	ELEVON	AILERON	BOFLAP	SPODBK	REF. INFO
○	ARC 87-747 CAS3C B C M F V	.000	.000	11.700	25.000	SREF 2.4212 SQ.FT.
□	ARC 87-747 CAS3C B C M F V	.000	.000	11.700	55.000	LREF 14.2442
◇	ARC 87-747 CAS3C B C M F V	.000	.000	11.700	85.000	BREF 28.1004
						XMREF 37.3221
						YMREF 11.7000
						ZMREF 11.7000
						SCALE .0300



FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL: TEL0241, TEL0011, TEL0038

CONFIGURATION DESCRIPTION: APC 87-747 CAS3C B C M F V, APC 87-747 CAS3C B C M F V, APC 87-747 CAS3C B C M F V

ELEVATION: .000, .000, .000

ALLISON: .000, .000, .000

BOFLAP: -11.700, -11.700, -11.700

SPOBRK: 25.000, 55.000, 85.000

REFERENCE INFORMATION: S EF 2.4210 SC.FT., L EF 14.2440 SC.FT., L EF 28.1004 SC.FT., L EF 32.3010 SC.FT., Y400 11.2500 SC.FT., Y400 11.2500 SC.FT., SCALE 1.000

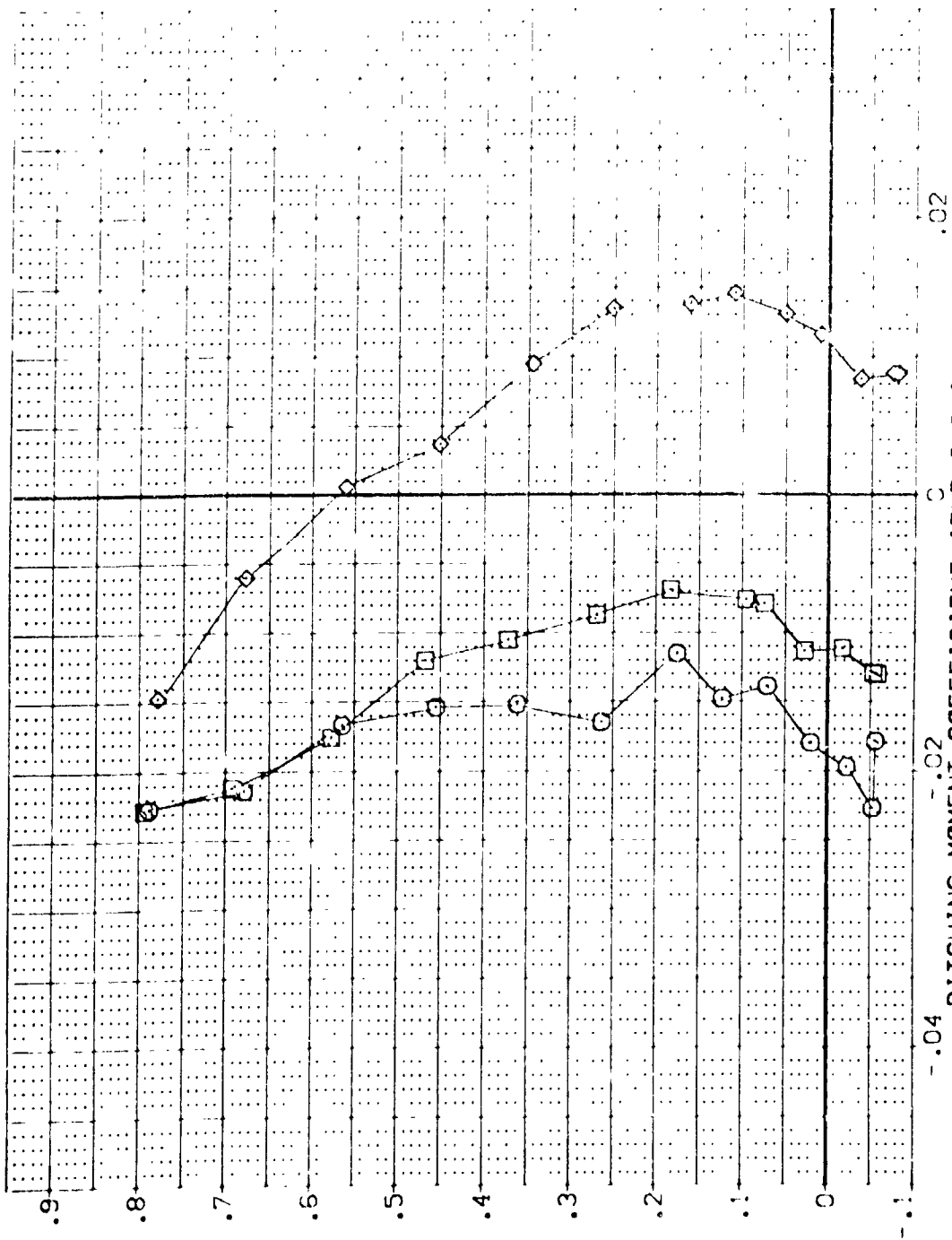


FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	AILERON	BOE LAP	SPEED	REFERENCE INFORMATION
Q	ARC 87-747 CLASSIC B C M F V1 V	.000	.000	-111.700	29.000	SREF 2.4210 SQ. FT.
Q	ARC 87-747 CLASSIC B C M F V1 V	.000	.000	-111.700	55.000	BREF 14.2440
Q	ARC 87-747 CLASSIC B C M F V1 V	.000	.000	-111.700	85.000	BREF 28.1004
Q	ARC 87-747 CLASSIC B C M F V1 V	.000	.000	-111.700	111.700	YREF 32.3000
Q	ARC 87-747 CLASSIC B C M F V1 V	.000	.000	-111.700	111.700	ZREF 11.2500
Q	ARC 87-747 CLASSIC B C M F V1 V	.000	.000	-111.700	111.700	SCALE .0300

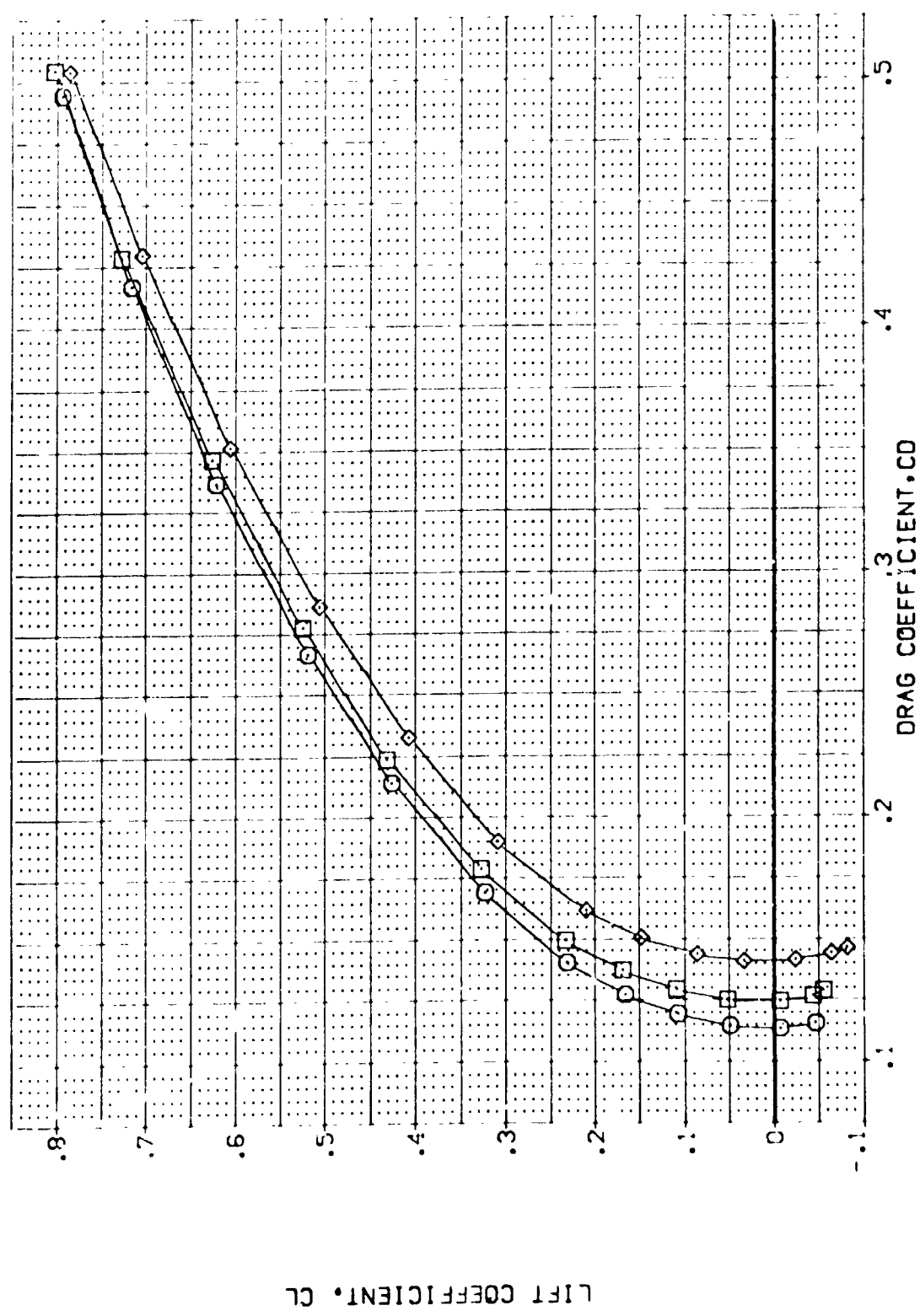


FIG. 9 SPEEDBRAKE EFFECTS

(M)MACH = 2.50



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    AIRBRN    BOFLAP    SPEEDBRK    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AIRBRN	BOFLAP	SPEEDBRK	REFERENCE INFORMATION
(1) (024)	ARC 87-747 BASIC B C M F V I V	.000	.000	-.700	25.000	SPREF 2.42 0 SQ.FT.
(2) (025)	ARC 87-747 BASIC B C M F V I V	.000	.000	-.700	55.000	SP 14.2410
(3) (026)	ARC 87-747 BASIC B C M F V I V	.000	.000	-.700	65.000	BRIC 28.1074
(4) (027)	ARC 87-747 BASIC B C M F V I V	.000	.000	-.700	65.000	YMOO 32.30 0
(5) (028)	ARC 87-747 BASIC B C M F V I V	.000	.000	-.700	65.000	YMOO 11.2400
(6) (029)	ARC 87-747 BASIC B C M F V I V	.000	.000	-.700	65.000	SCALE 11.2400

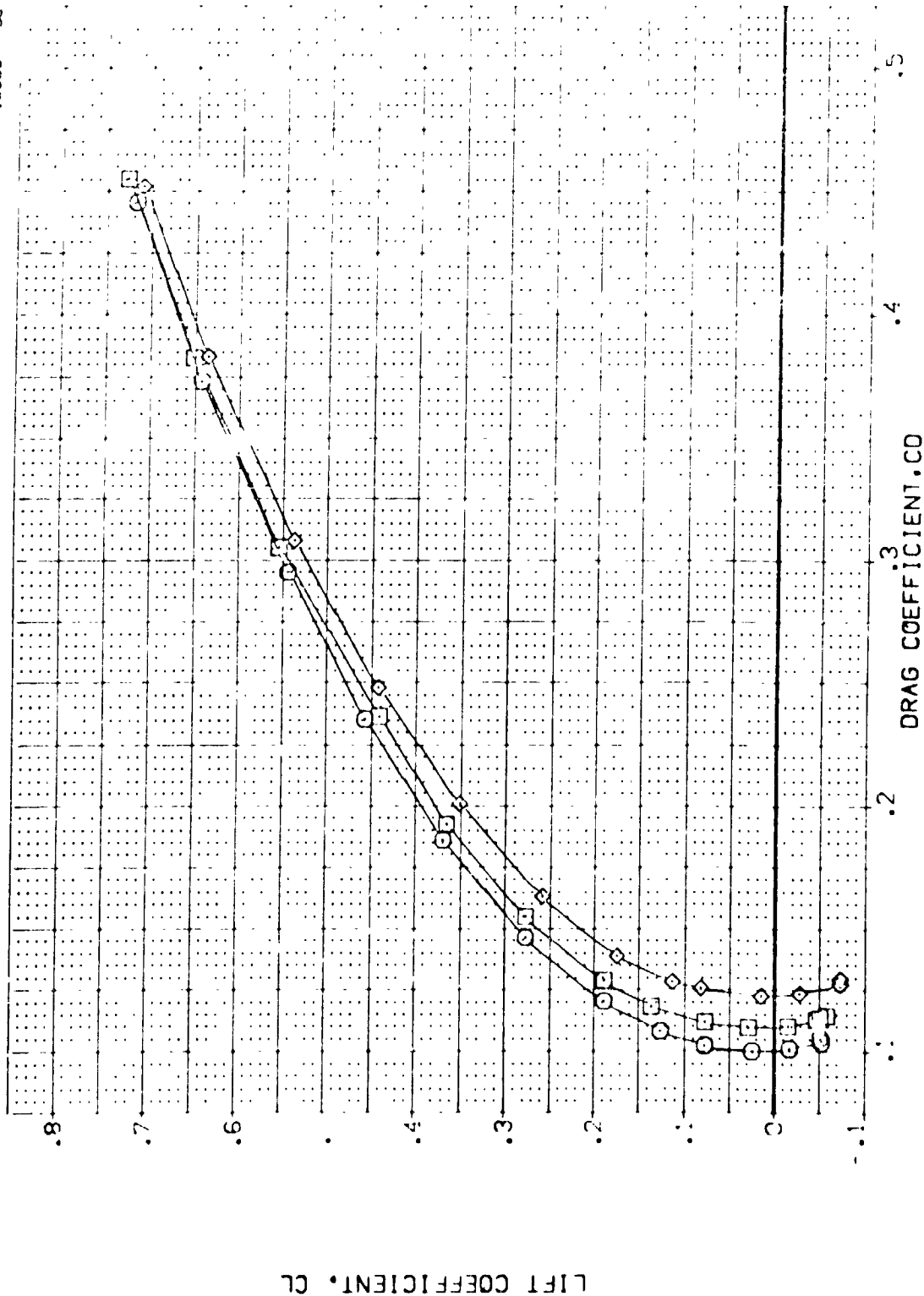


FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL: [1E024] [1E011] [1E000]

CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C M F VI V NOM: RV/L ARC 87-747 BASIC B C M F VI V NOM: RV/L ARC 87-747 BASIC B C M F VI V NOM: RV/L

ELEVON: .000 .000 .000

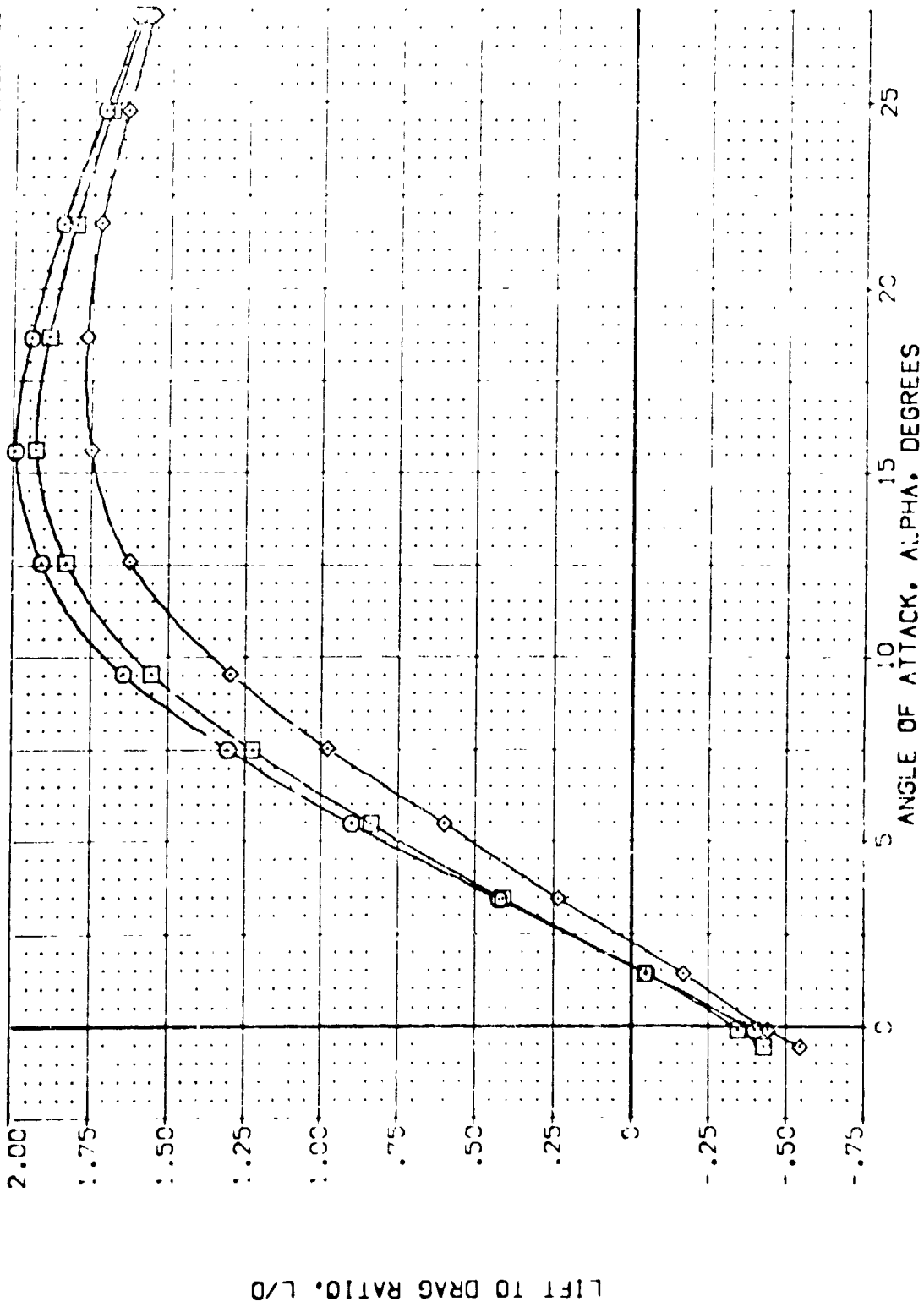
AILERON: .000 .000 .000

BOE LAP: -11.700 -11.700 -11.700

SPEED: 75.000 55.000 85.000

REFERENCE INFORMATION: 2.4210 14.244 28.100 32.300 11.200 11.200 11.200

SCALE: .0000 .0000 .0000 .0000 .0000 .0000 .0000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[1.024]	ARC 87-747 CAS3C B C M F V	.000	.000	-11.700	25.000	SREF 2.4210
[1.025]	ARC 87-747 CAS3C B C M F V	.000	.000	-11.700	55.000	REF 11.2410
[1.026]	ARC 87-747 CAS3C B C M F V	.000	.000	-11.700	85.000	REF 18.1000
						REF 32.3010
						REF 11.2500
						SCALE .0300

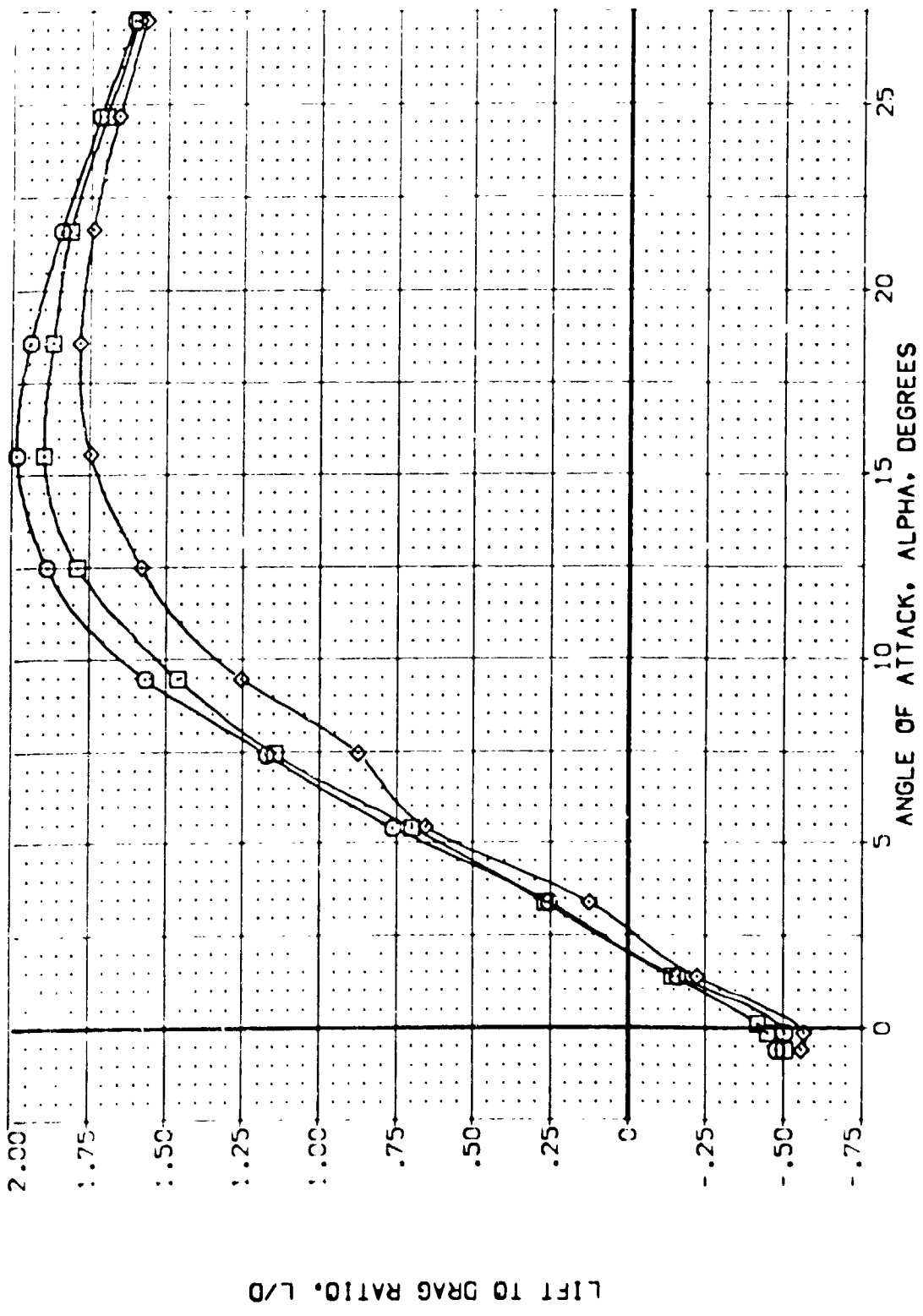


FIG. 9 SPEEDBRAKE EFFECTS  
(B)MAC = 3.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    AILERON    BOFLAP    SPEED    REFERENCE INFORMATION

[E-074]	ARC 87-747 CASIC B C M F V	.000	.000	11.700	25.000	SREF	2.4210	50.000
[E-075]	ARC 87-747 CASIC B C M F V	.000	.000	11.700	55.000	UREF	14.2440	50.000
[E-076]	ARC 87-747 CASIC B C M F V	.000	.000	11.700	85.000	BRF	28.1004	50.000
						MRP	37.3000	50.000
						YREF	11.7000	50.000
						ZREF	7.7000	50.000
						SCALE	10.000	50.000

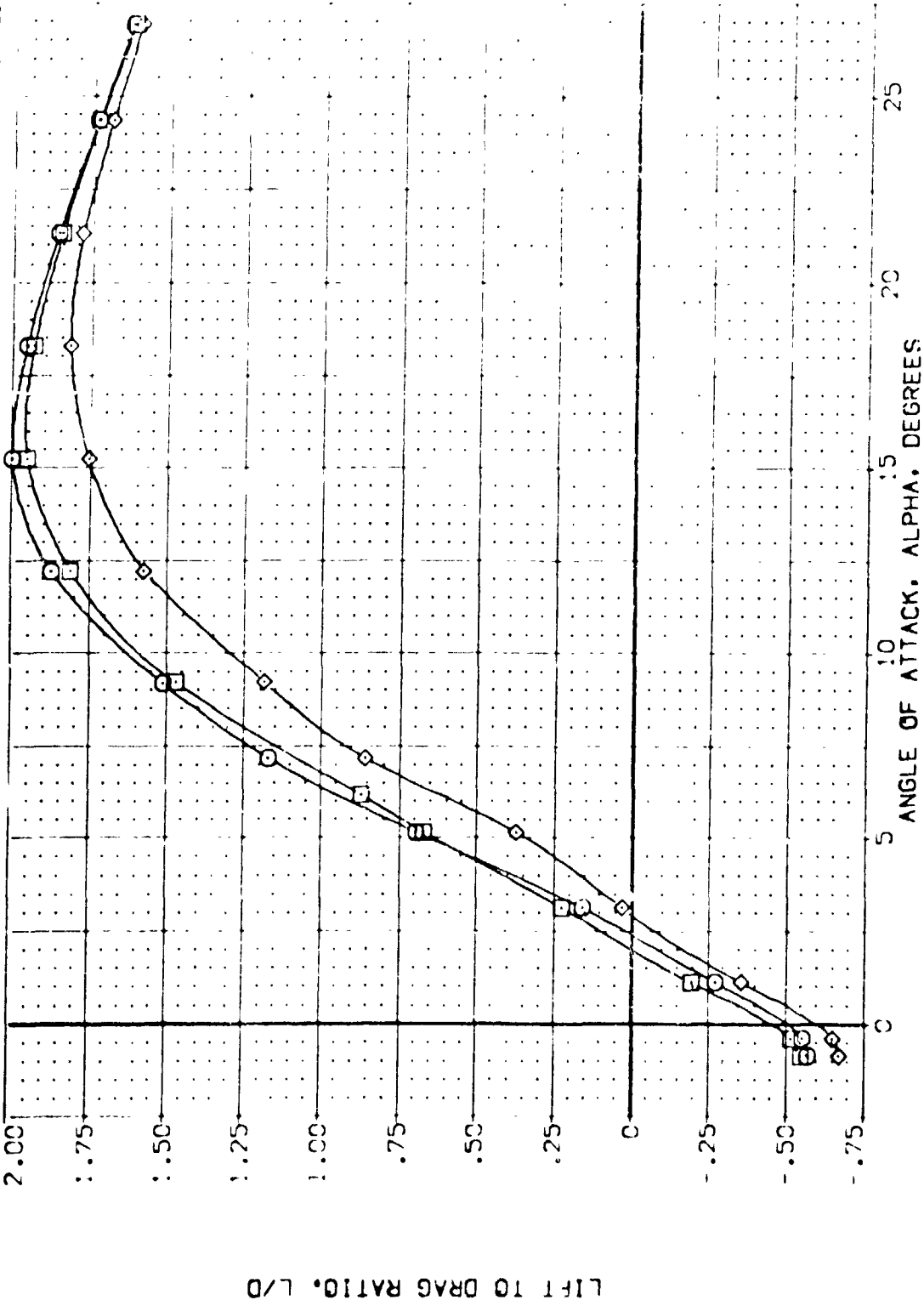


FIG. 9 SPEEDBRAKE EFFECTS

(C)MAC = 3.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AEL074)	ARC 87-747	BASIC B C M F VI	V	NON: RN/L
(AEL011)	ARC 87-747	BASIC B C M F VI	V	NON: RN/L
(AEL038)	ARC 87-747	BASIC B C M F VI	V	NON: RN/L

ELEVATION AILRON BOFLAP SPOBRK

.000	.000	-11.700	25.000
.000	.000	-11.700	55.000
.000	.000	-11.700	85.000

REFERENCE INFORMATION

SREF	2.42.0	SCALE
LRREF	14.2440	
BRREF	28.1000	
YMRP	32.0000	
ZMRP	11.2000	
SCALE	.0300	

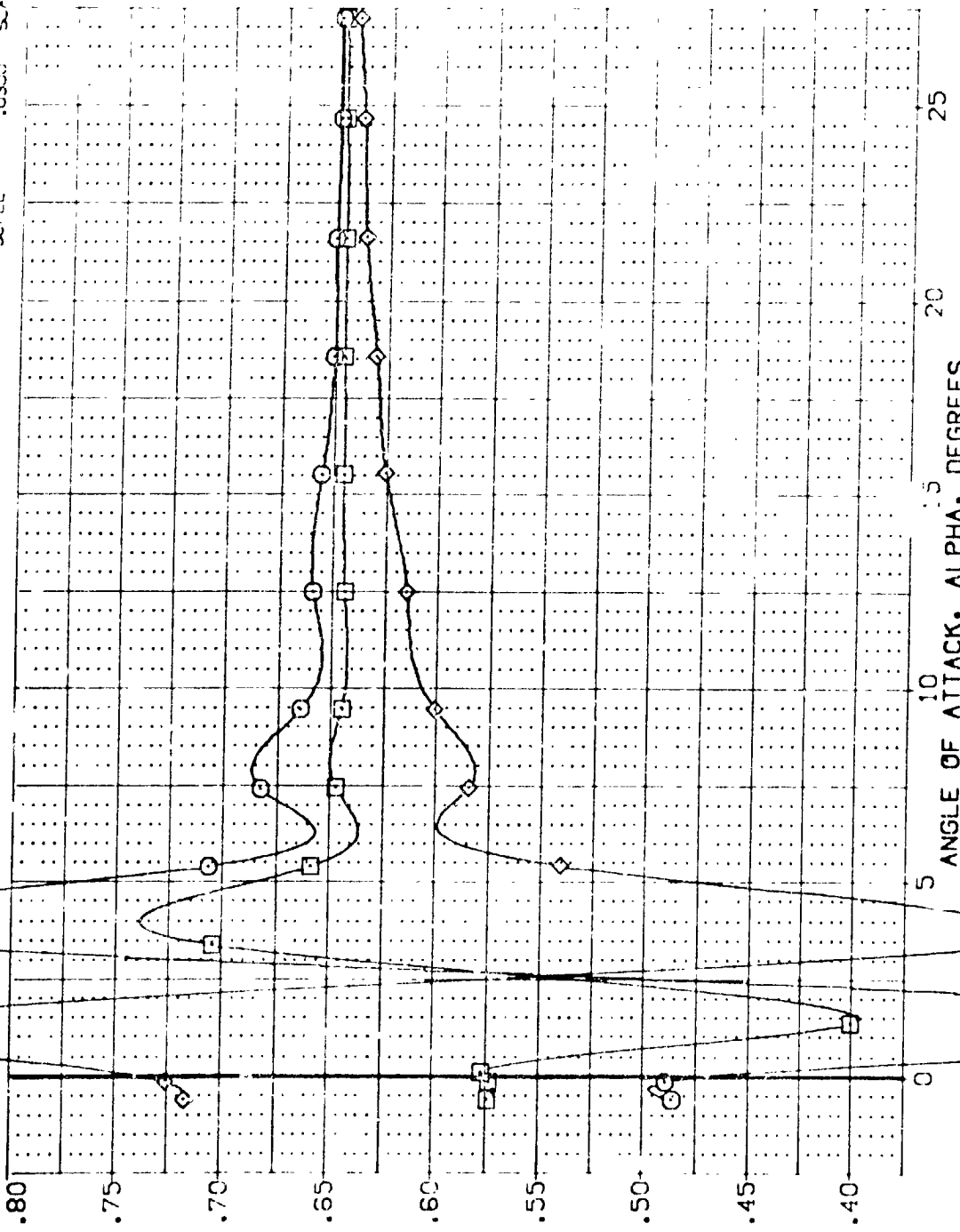
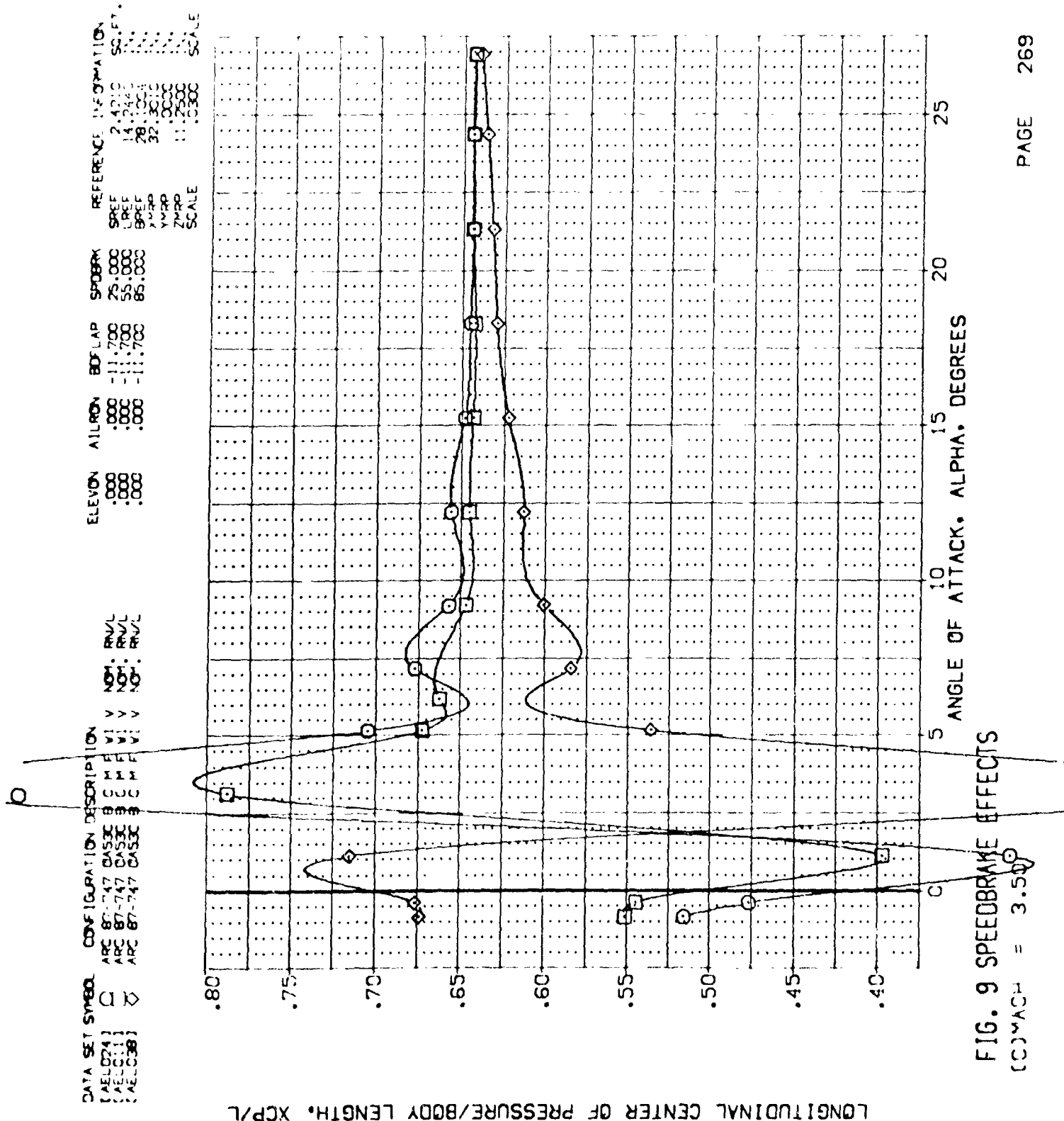


FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00





DATA SET SYMBOL: 01111  
 CONFIGURATION DESCRIPTION: ARC 87-747 DAS3C B C M F VI V  
 REFERENCE INFORMATION: SREF 2.4210 SQ.FT.  
 LREF 14.2440  
 EREF 28.1004  
 XMRD 32.3000  
 YMRD 11.2500  
 SCALE 10300

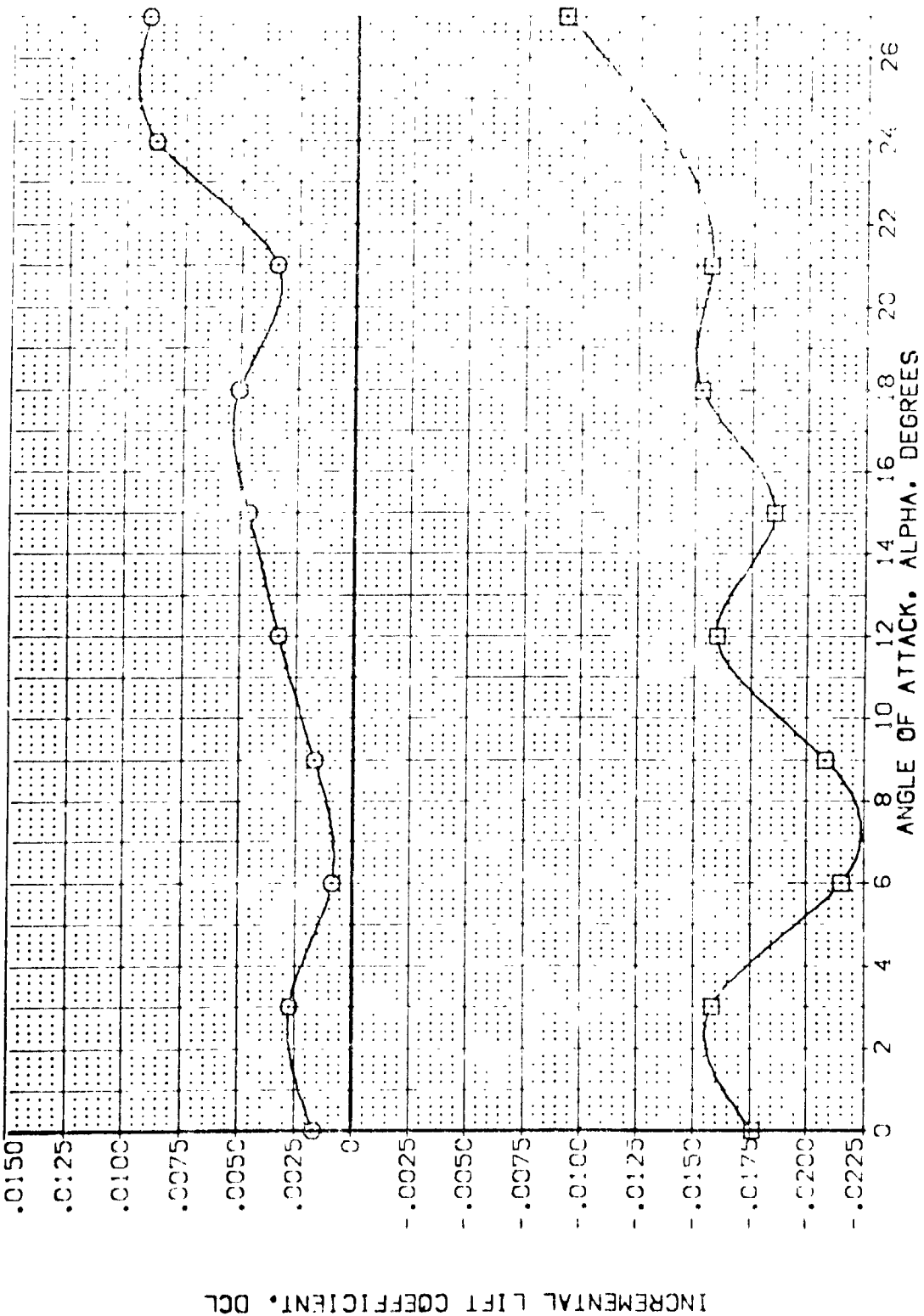


FIG. 9 SPEEDBRAKE EFFECTS

(A) MACH = 2.50

NON. NON.

ELEVATION	ALLISON	BOG LAP	RJODGER	REFERENCE INFORMATION	
.000	.000	-11.700	.000	SPEE	2.42 0
.000	.000	-11.700	.000	LEEF	14.24 0
				BOFF	28.10 4
				XMRP	32.30 0
				YMRP	11.00 0
				ZMRP	11.25 0
				SCALE	.000
				SCALE	SCALE

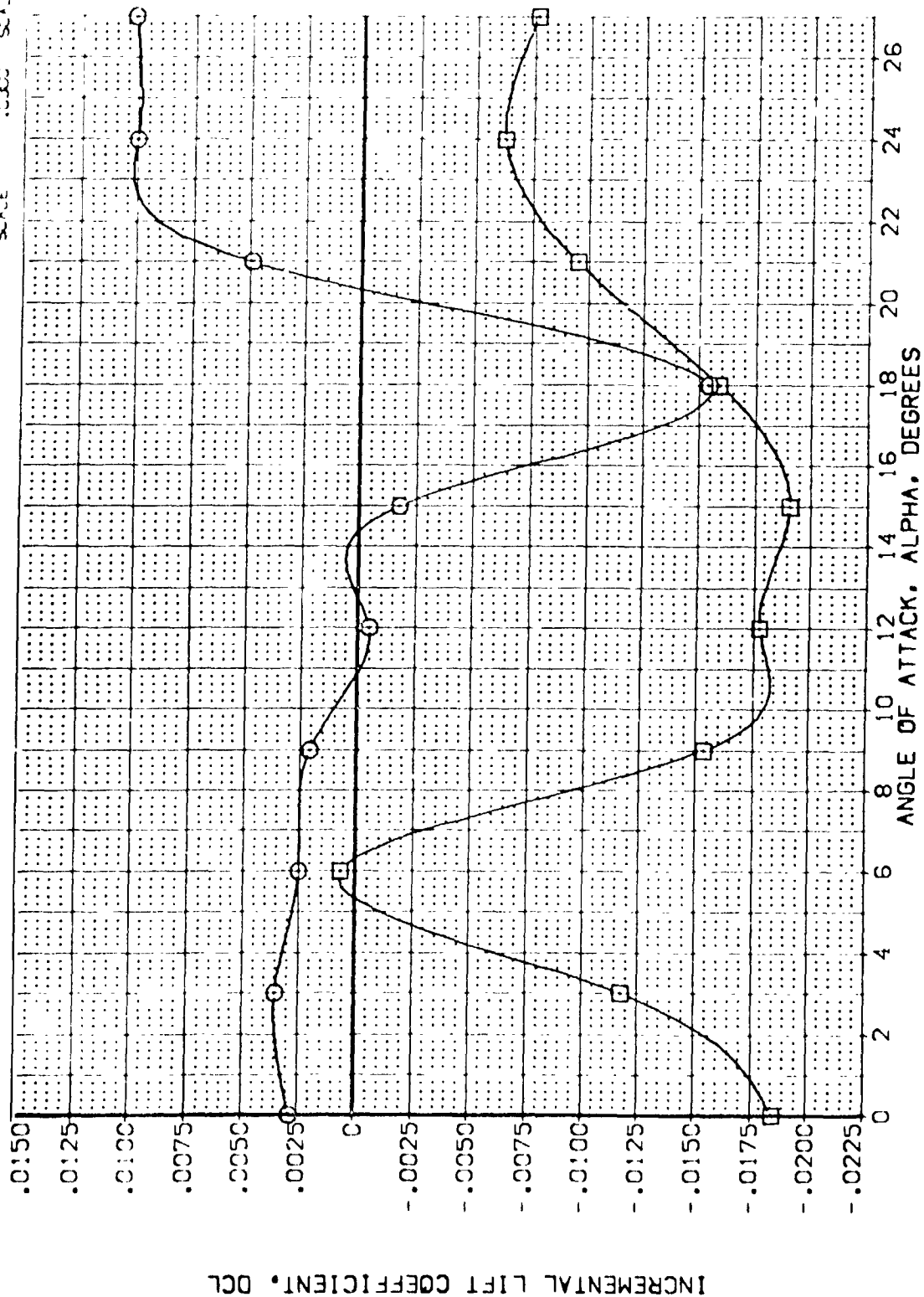


FIG. 9 SPEEDBRAKE EFFECTS

$$[B]^{MAC} = 3.00$$



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		AILERON		BDF LAP		RUDDER		REFERENCE INFORMATION	
Q	ARC 87-747	CAS5C	B C M F V	V	NOM.	RV/L						SREF	2.4210
U	ARC 87-747	CAS5C	B C M F V	V	NOM.	RV/L						LREF	14.2440
												BREF	28.1001
												XREF	32.3000
												YREF	11.2500
												ZREF	0.0300
												SCALE	0.0300

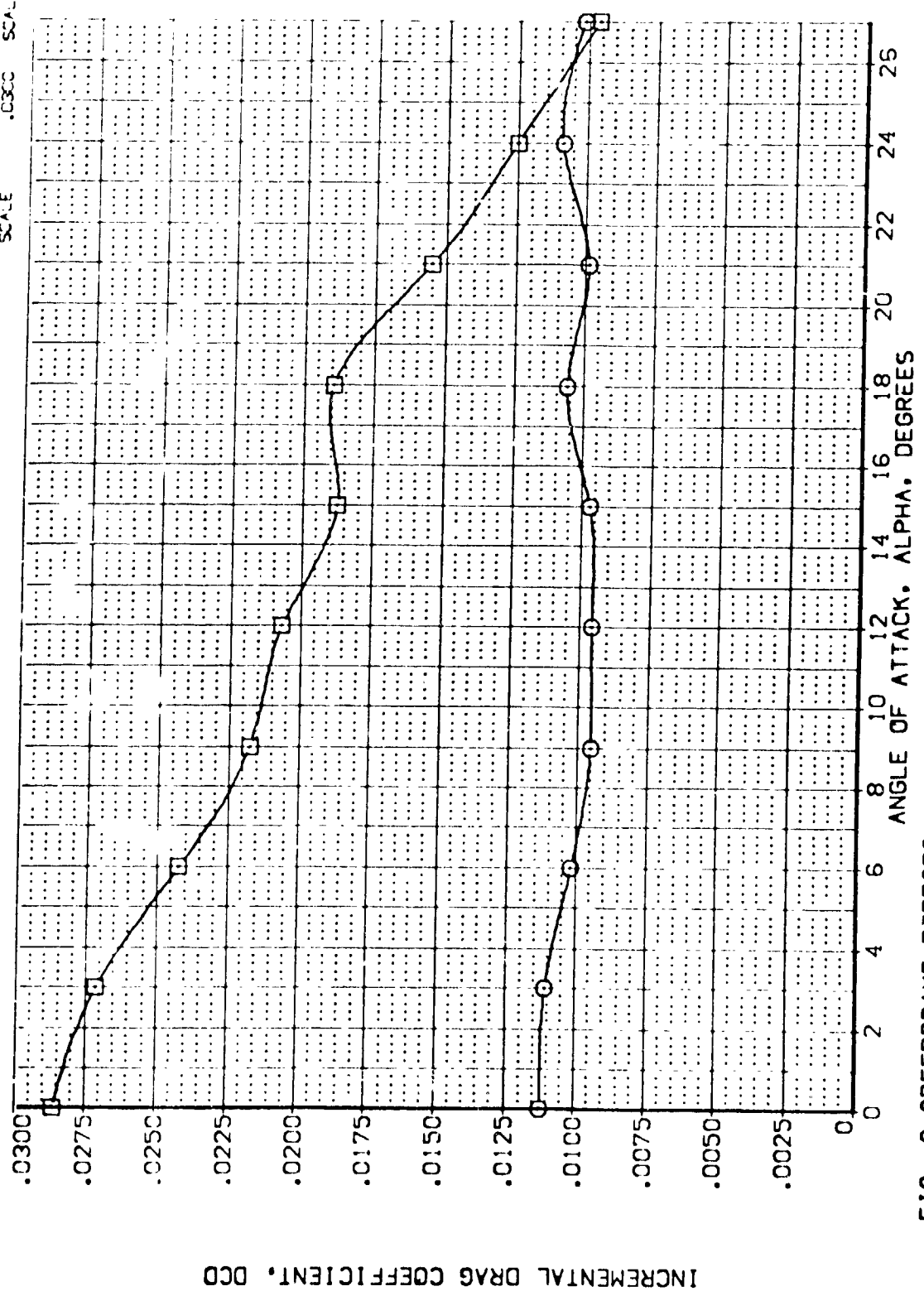


FIG. 9 SPEEDBRAKE EFFECTS

(A) MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

(DE-011)	ARC 87-747	0453C	B	C	M	F	V	V	NOM	RAVL	ELEVON	AILERON	BOFLAP	RUDDER	SPEC	2.4213	SCALE
(VEL-038)	ARC 87-747	0453C	B	C	M	F	V	V	NOM	RAVL	ELEVON	AILERON	BOFLAP	RUDDER	REF	14.2440	
															BOEE	78.304	
															VMDO	37.3000	
															ZWDO	11.7000	
															SCALE	10.000	

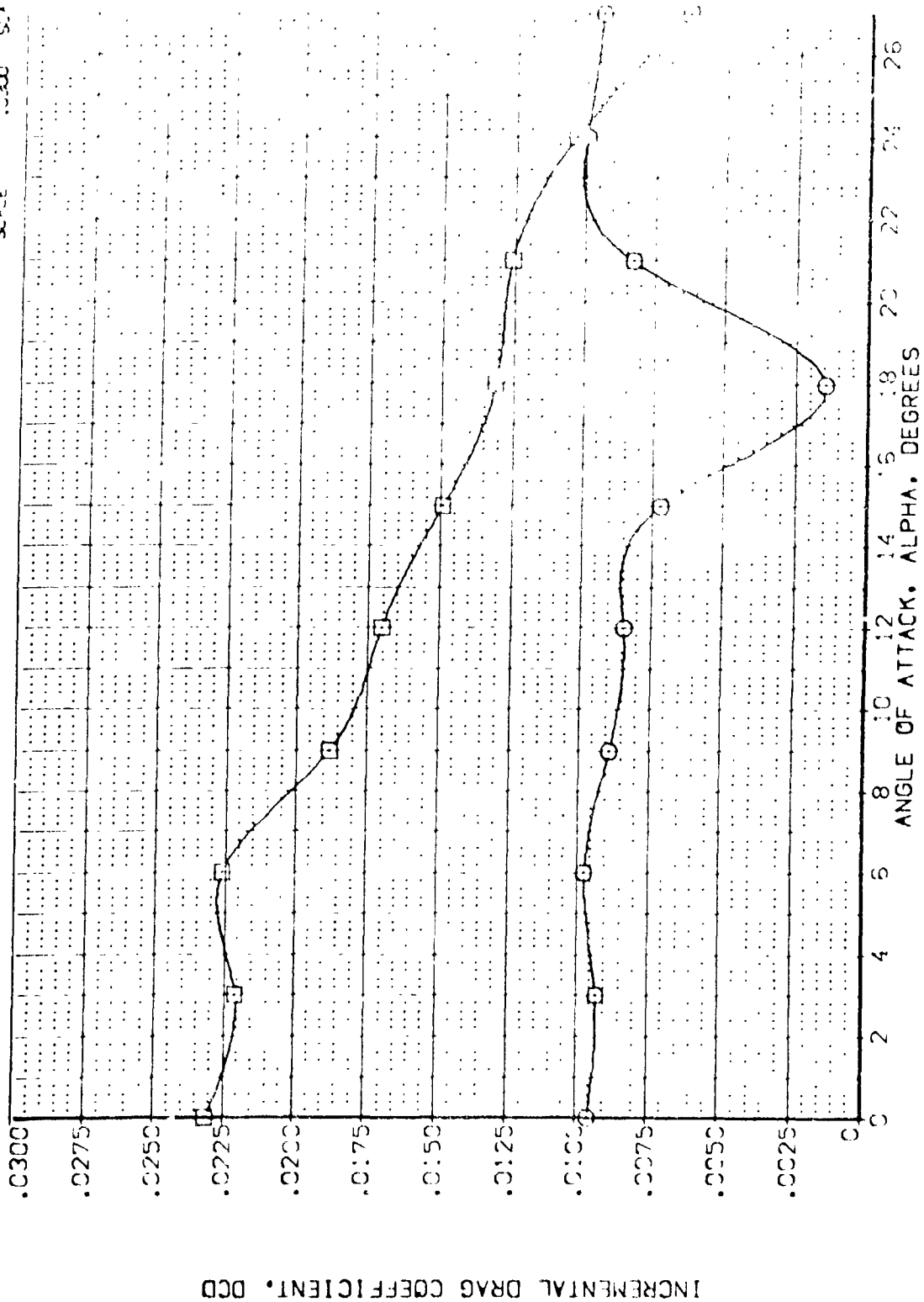


FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00





DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ELEVON	AILERON	BOF LAR	RUDDER	REF	INFO
010000	ABC 87-747	BASE B C M F V	.000	.000	-11.700	.000	2.4710	SQ. FT.
010000	ABC 87-747	BASE B C M F V	.000	.000	-11.700	.000	14.2440	IN.
010000	ABC 87-747	BASE B C M F V	.000	.000	-11.700	.000	28.1004	IN.
010000	ABC 87-747	BASE B C M F V	.000	.000	-11.700	.000	32.3010	IN.
010000	ABC 87-747	BASE B C M F V	.000	.000	-11.700	.000	11.2500	SCALE

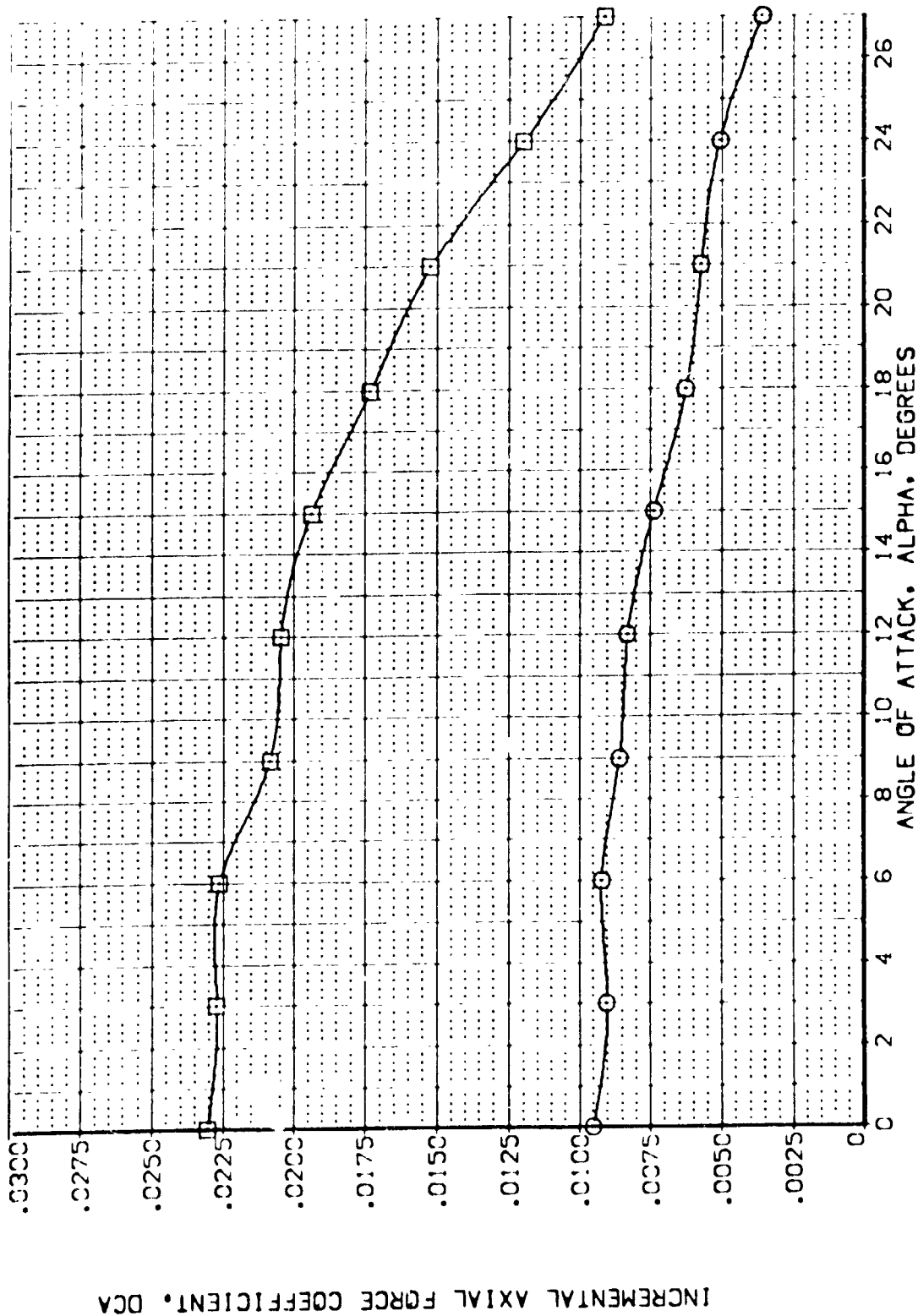


FIG. 9 SPEEDBRAKE EFFECTS

(8)MACH = 3.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION

OE-011	ARC 87-747	CA53C B C M F V	V	NON- R/V/L	ELEVON	AILERON	BOFLAP	RUDDER	REFERENCE INFORMATION
[VELC38]					.000	.000	-11.700	.000	SPEED 2.42.0 SQ.FT.
					.000	.000	-11.700	.000	REF 14.2410
									BOFF 28.1004
									YMD0 37.3000
									YMD0 11.0000
									ZMD0 11.0000
									SCALE 10.000

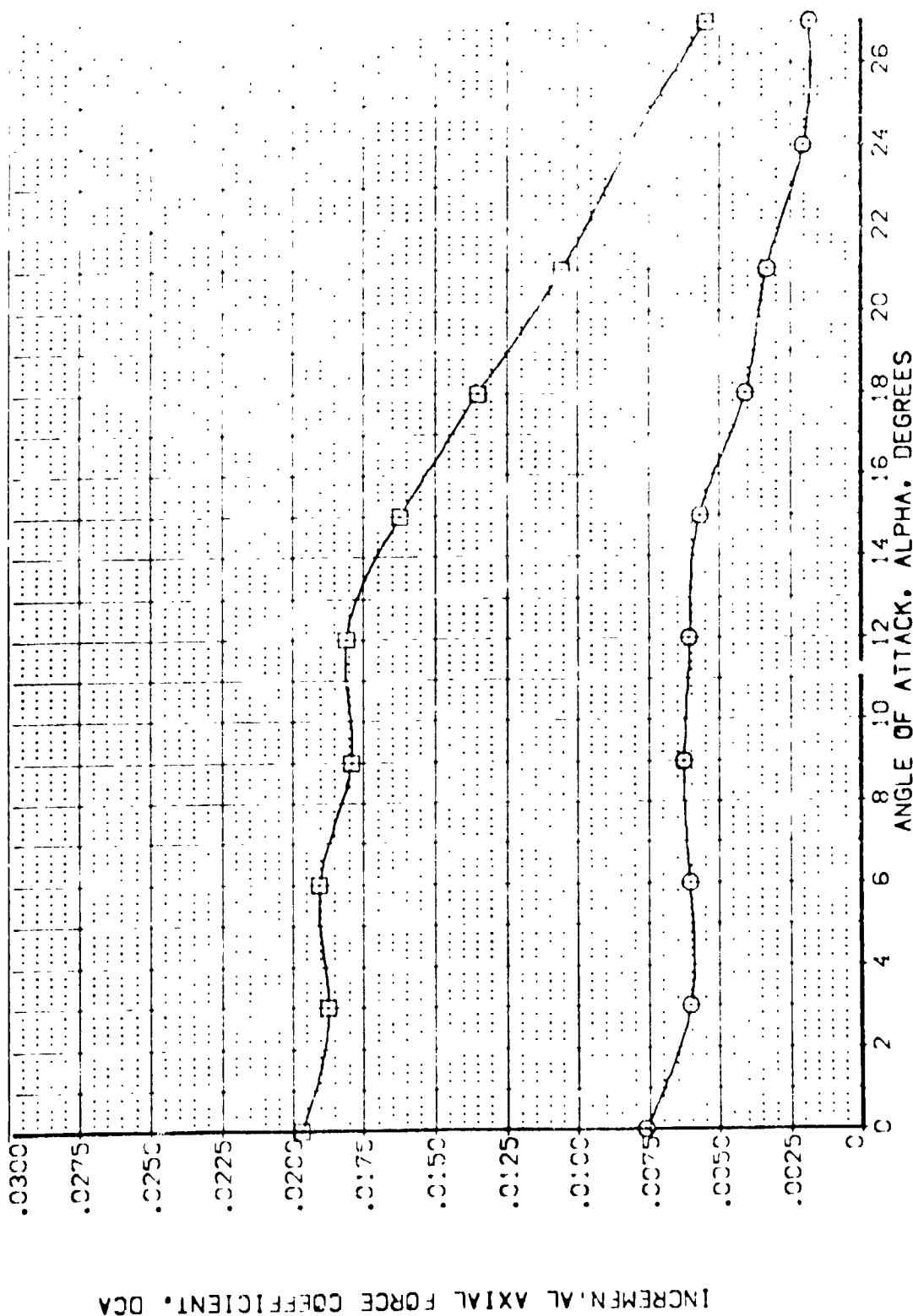
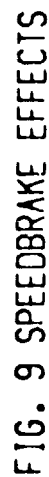


FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

REFERENCE INFORMATION	
SPEC	2-4110 SCPT.
REF	14-2443
REF	28-1001
WIND	30-3010
WIND	11-2000
WIND	11-2000
SCALE	1:1000



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DATA SET SYMBOL: CONFIGURATION DESCRIPTION: REFERENCE INFORMATION: SCALE: 1:1000

CONFIGURATION DESCRIPTION	REFERENCE INFORMATION	SCALE
ARC 87-747 DASSIC B C M F V	2.4210	1:1000
ARC 87-747 DASSIC B C M F V	14.2140	1:1000
ARC 87-747 DASSIC B C M F V	28.0040	1:1000
ARC 87-747 DASSIC B C M F V	32.0010	1:1000
ARC 87-747 DASSIC B C M F V	11.0000	1:1000
ARC 87-747 DASSIC B C M F V	11.0000	1:1000

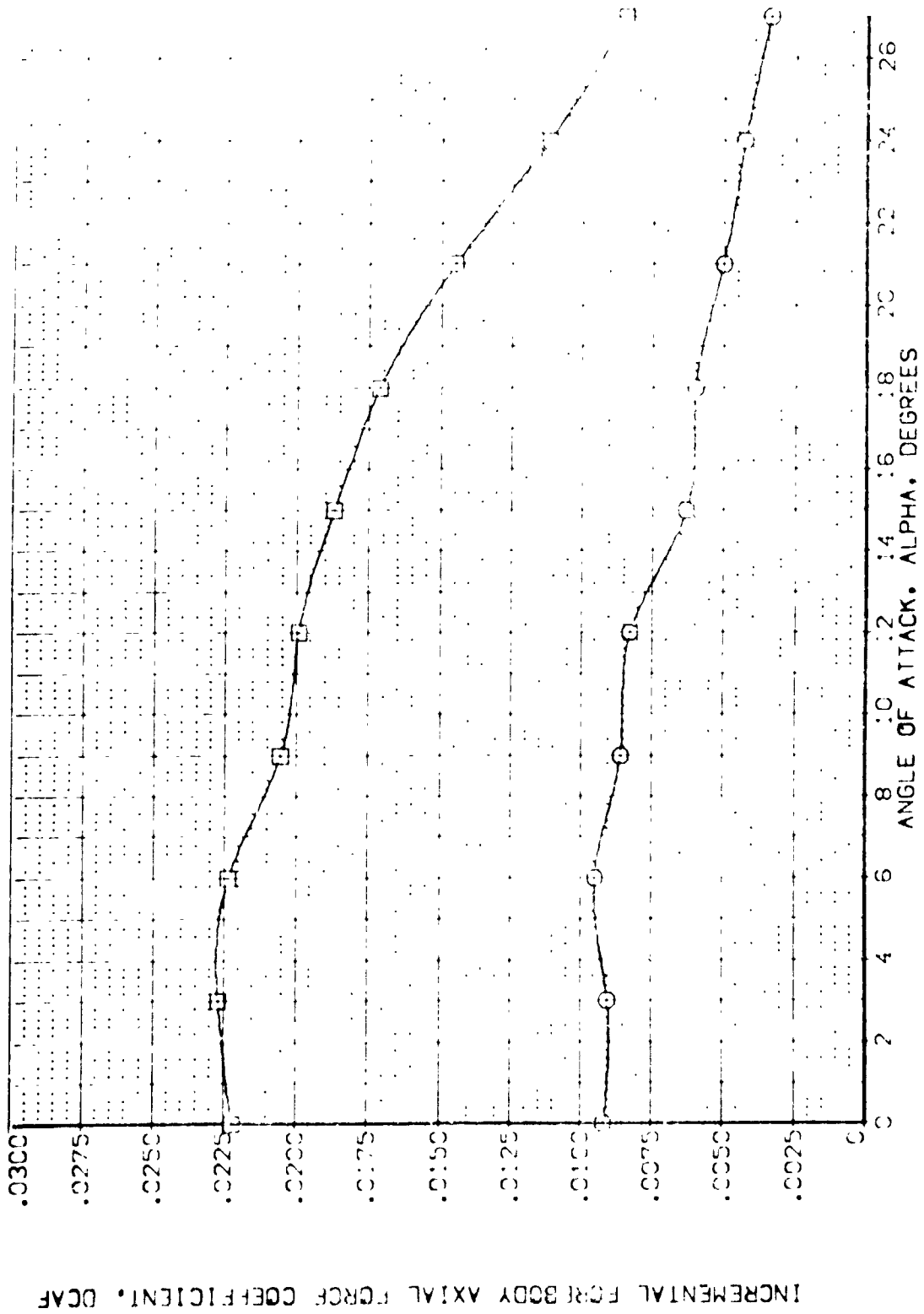


FIG. 9 SPEEDBRAKE EFFECTS

(B)MAC = 3.00

DATA SET SYMBOL: (A) ARC 87-747 CAS3C B C M F V (B) ARC 87-747 CAS3C B C M F V (C) ARC 87-747 CAS3C B C M F V

CONFIGURATION DESCRIPTION: (A) ARC 87-747 CAS3C B C M F V (B) ARC 87-747 CAS3C B C M F V (C) ARC 87-747 CAS3C B C M F V

REFERENCE INFORMATION: SREF 2.4210 SQ.FT. LREF 14.2440 BREF 28.1004 XREF 32.3010 YREF 11.2500 ZREF 11.2500 SCALE .0300

ELEVON .000 .000 .000 AILERON .000 .000 .000 BOFLAP .000 .000 .000 RUDDER .000 .000 .000

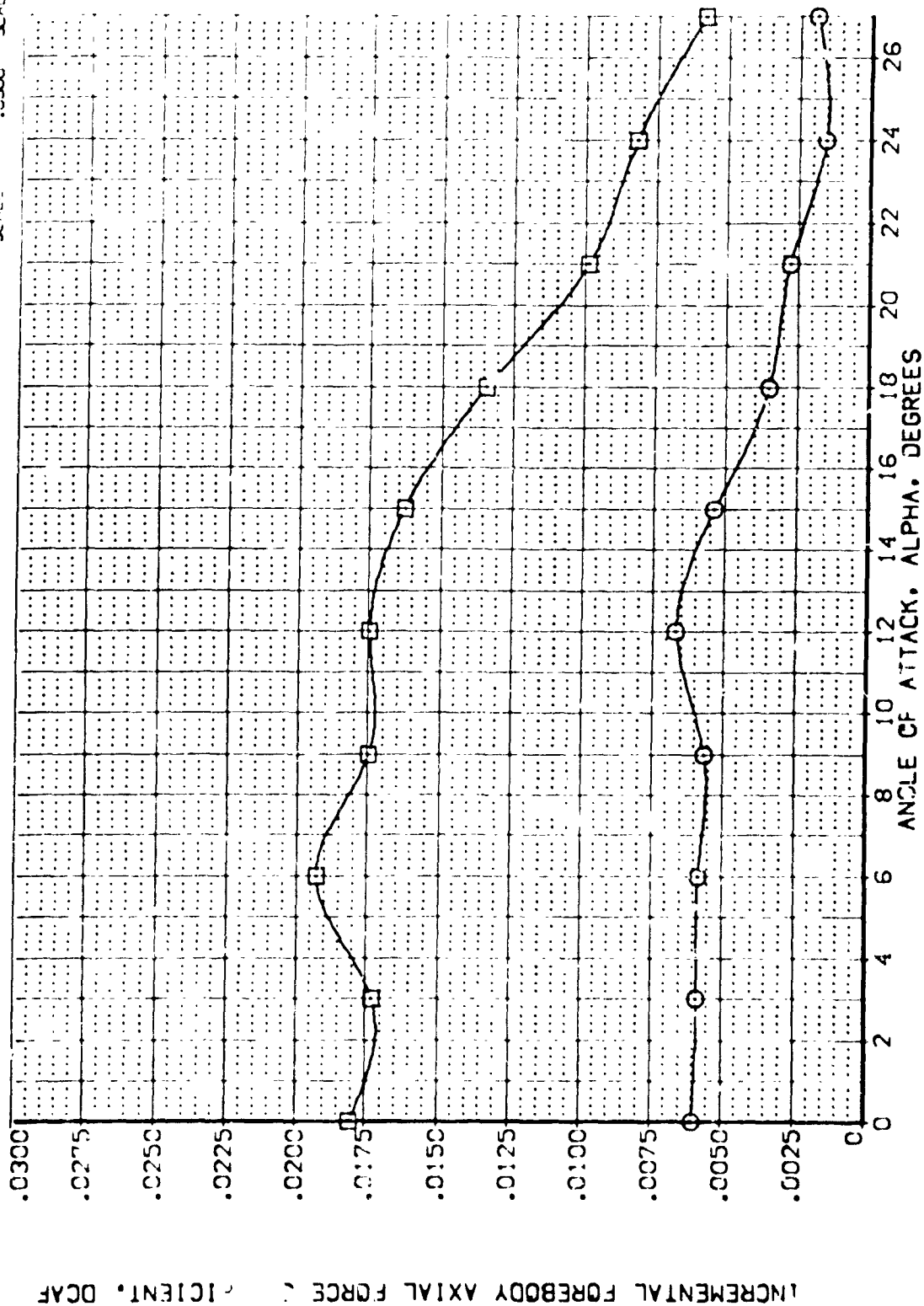


FIG. 9 SPEEDBRAKE EFFECTS

(C) MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	RUDDER	REFERENCE INFORMATION
[DELO11]	ARC 87-747 CAS3C B C H F V1	.000	.000	-11.700	.000	SREF 2.4210
[VEL338]	ARC 87-747 CAS3C B C H F V1	.000	.000	-11.700	.000	REF 14.7410
						EQ 19.004
						EQ 37.000
						EQ 14.000
						EQ 11.000
						EQ 11.000
						SCALE 1.000

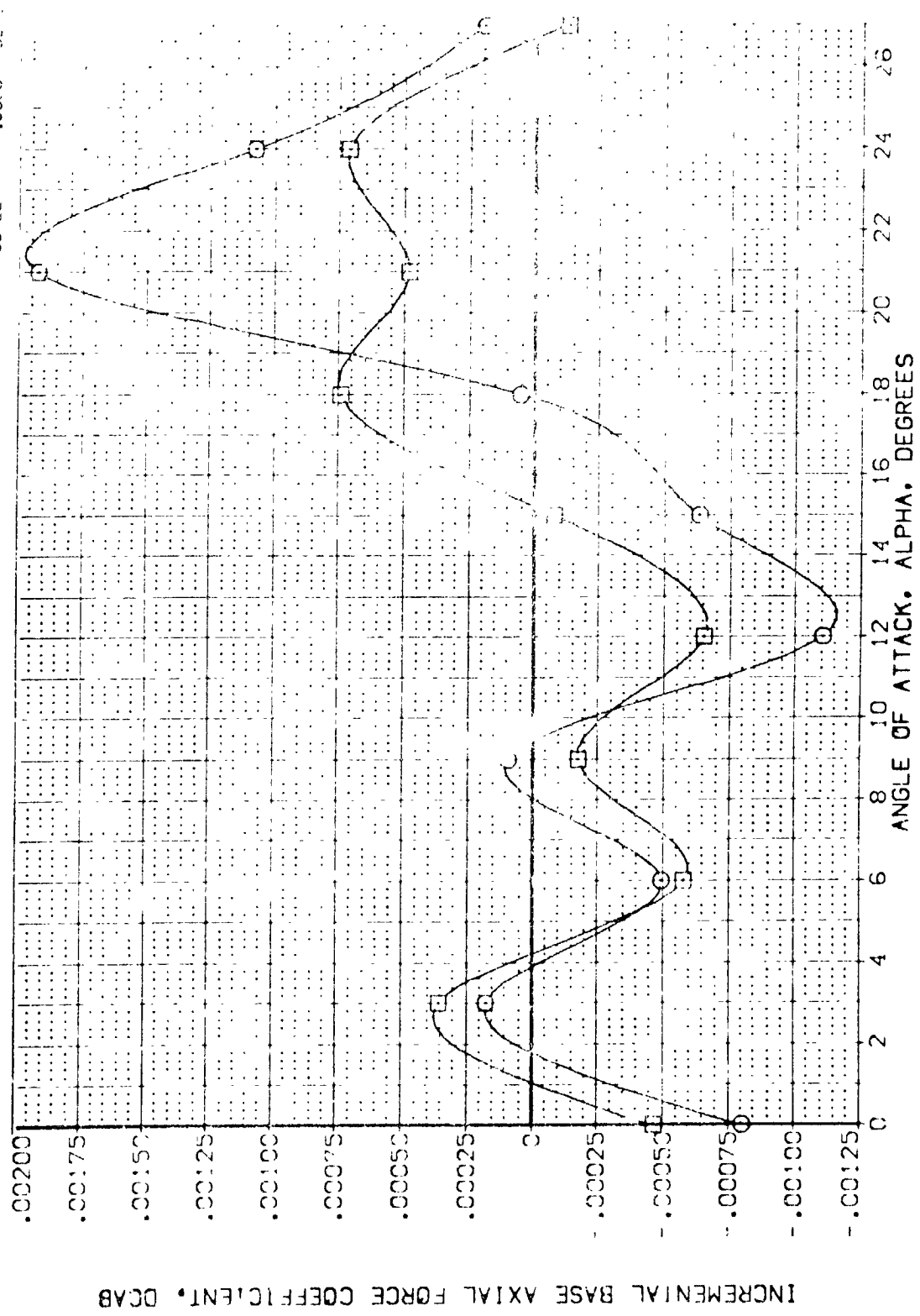


FIG. 9 SPEEDBRAKE EFFECTS

(A) MACH = 2.50

DATA SET SYMBOL: CONFIGURATION DESCRIPTION: REFERENCE INFORMATION:

CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
ARC 87-747 BASIC B C M F VI V	SREF 2.4210 50.0 FT.
ARC 87-747 BASIC B C M F VI V	LREF 14.2440 IN.
	BREF 28.1004 IN.
	XMREF 32.3010 IN.
	YMREF 0.0000 IN.
	ZMREF 11.7500 IN.
	SCALE .0300

ELEVON .000 .000  
AILRON .000 .000  
BDFLAP .000 -11.700  
RUDDER .000 .000

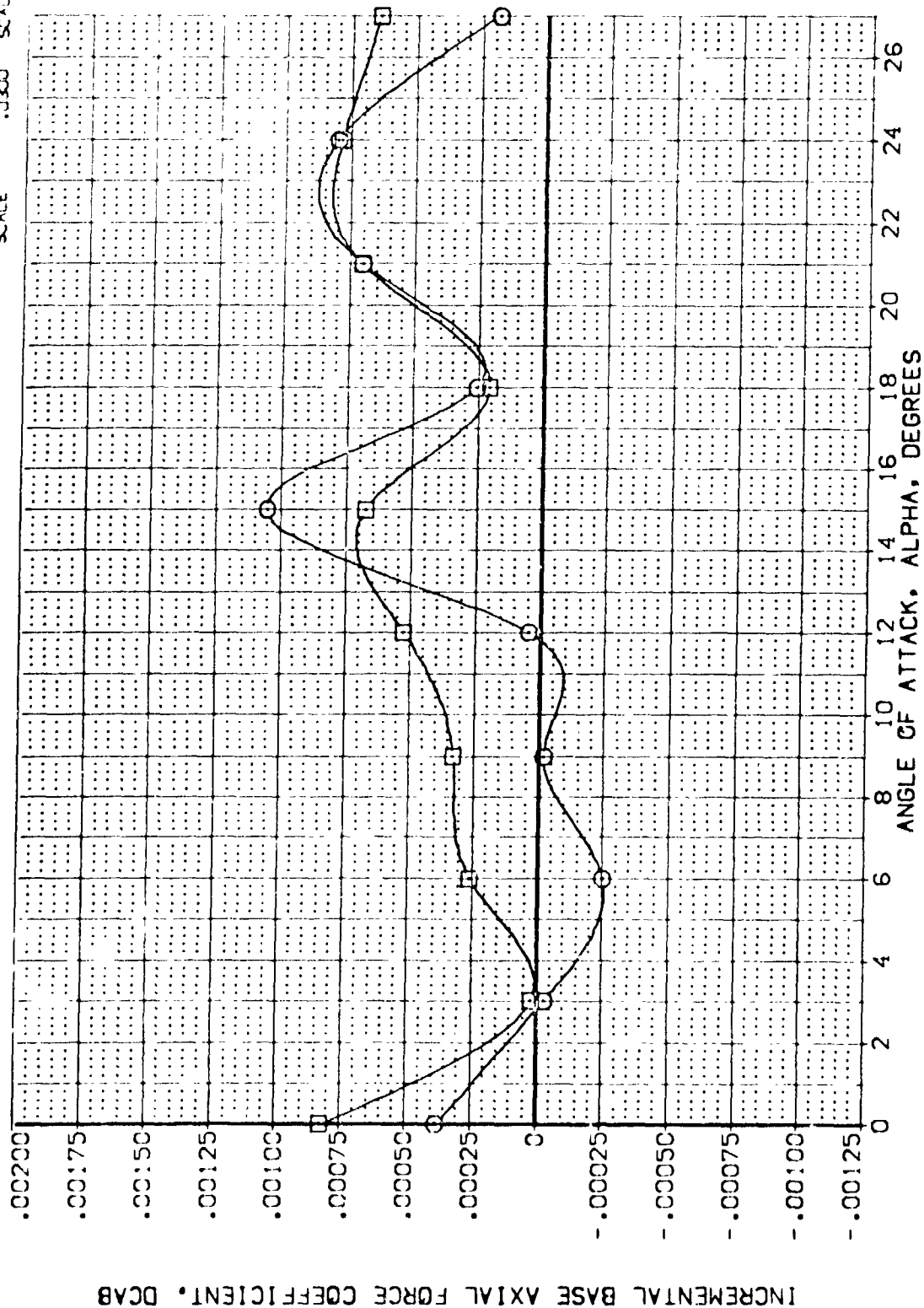


FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL: [Symbol] CONFIGURATION DESCRIPTION: ARC 87-747 0A53C B C M F V1 V NMH. RNVL  
 (VELO38): ARC 87-747 0A53C B C M F V1 V NMH. RNVL

ELEVON	AILERON	BOFLAP	RUDDER	REFERENCE INFORMATION
.000	.000	.000	.000	SPKF 2.4210 50.17
.000	.000	-11.700	.000	LRFF 14.2440 11.70
.000	.000	-11.700	.000	BRFF 28.1004 11.70
.000	.000	.000	.000	VMRP 32.3010 11.70
.000	.000	.000	.000	ZMRP 11.7500 11.70
.000	.000	.000	.000	SCALE .0000 11.70

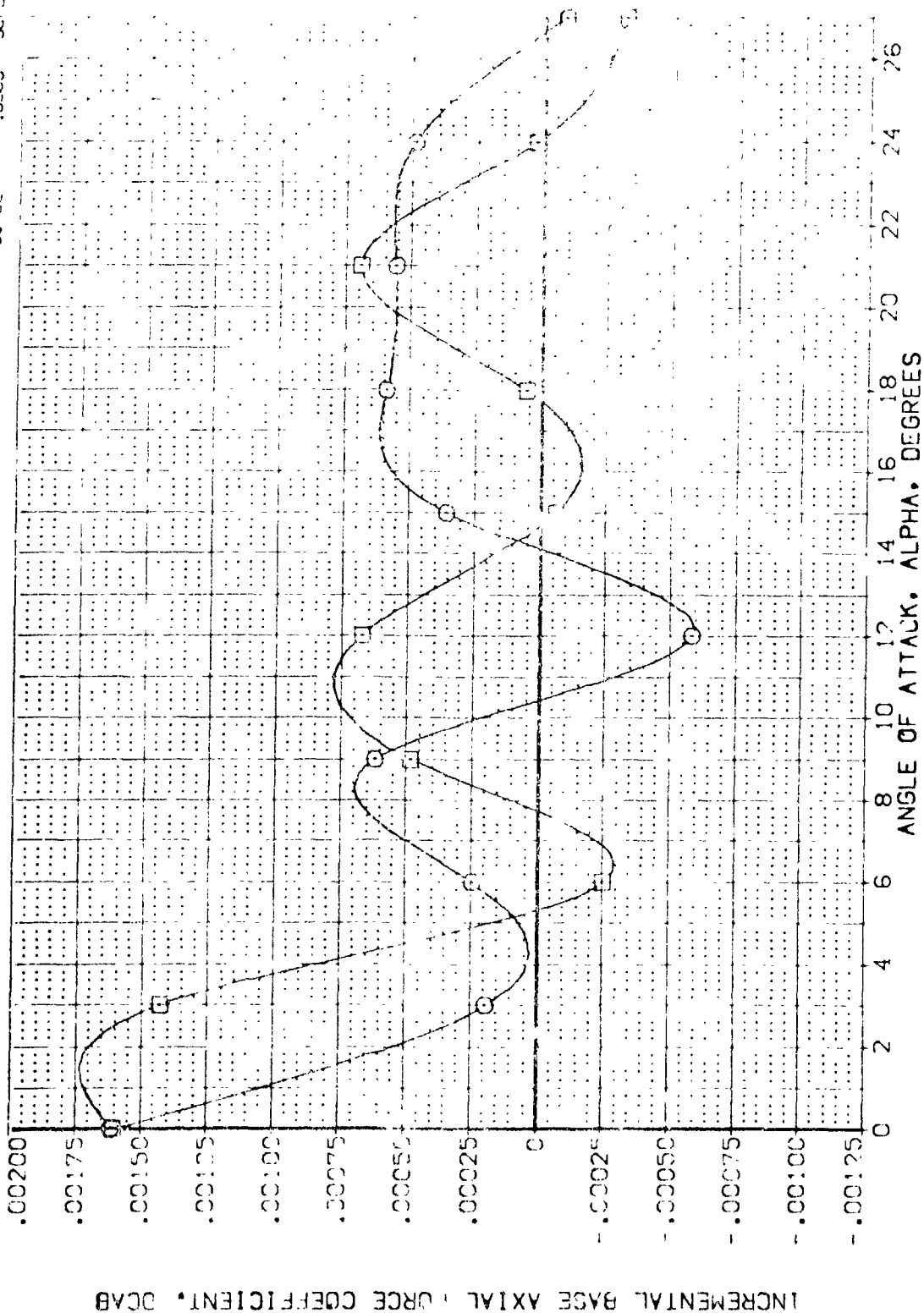


FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

A graph showing the Incremental Normal Force Coefficient (Y-axis) versus the Angle of Attack in degrees (X-axis). The Y-axis ranges from -0.0225 to 0.0150 in increments of 0.0025. The X-axis ranges from 0 to 26 in increments of 2. Two curves are plotted: one with open circle markers and one with open square markers. Both curves show a peak around 14 degrees and a sharp drop after 18 degrees. The circle curve is generally higher than the square curve for angles between 2 and 18 degrees.

Angle of Attack (Degrees)	Circle Series (DCN)	Square Series (DCN)
0	0.0000	0.0000
2	0.0030	0.0015
4	0.0045	0.0025
6	0.0055	0.0035
8	0.0060	0.0040
10	0.0065	0.0045
12	0.0070	0.0050
14	0.0075	0.0055
16	0.0070	0.0050
18	0.0060	0.0040
20	0.0045	0.0025
22	0.0030	0.0015
24	0.0015	0.0005
26	0.0000	0.0000

### FIG. 9 SPEEDBRAKE EFFECTS

$$[A]_{MACH} = 2.50$$



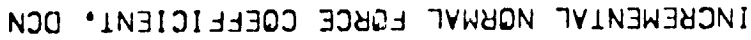
A graph showing the Incremental Normal Force Coefficient (Y-axis) versus the Angle of Attack in degrees (X-axis). The Y-axis ranges from -0.225 to 0.150 in increments of 0.025. The X-axis ranges from 0 to 26 in increments of 2. Five curves are plotted, labeled A, B, C, D, and E, corresponding to Mach numbers of 1.0, 1.2, 1.4, 1.6, and 1.8 respectively. Curve A (Mach 1.0) starts at (0,0), peaks at approximately (6, 0.025), and then decreases. Curve B (Mach 1.2) starts at (0,0), peaks at approximately (10, 0.025), and then decreases. Curve C (Mach 1.4) starts at (0,0), peaks at approximately (14, 0.025), and then decreases. Curve D (Mach 1.6) starts at (0,0), peaks at approximately (18, 0.025), and then decreases. Curve E (Mach 1.8) starts at (0,0), peaks at approximately (22, 0.025), and then decreases.

Angle of Attack (Degrees)	Mach 1.0 (A)	Mach 1.2 (B)	Mach 1.4 (C)	Mach 1.6 (D)	Mach 1.8 (E)
0	0.000	0.000	0.000	0.000	0.000
2	0.010	0.005	0.002	0.001	0.000
4	0.020	0.010	0.004	0.002	0.001
6	0.025	0.015	0.006	0.003	0.001
8	0.020	0.020	0.008	0.004	0.001
10	0.015	0.025	0.010	0.005	0.001
12	0.010	0.020	0.012	0.006	0.001
14	0.005	0.015	0.014	0.007	0.001
16	0.000	0.010	0.012	0.006	0.001
18	-0.005	0.005	0.010	0.005	0.001
20	-0.010	0.000	0.008	0.004	0.001
22	-0.015	-0.005	0.006	0.003	0.001
24	-0.020	-0.010	0.004	0.002	0.001
26	-0.025	-0.015	0.002	0.001	0.001

FIG. 9 SPEEDBRAKE EFFECTS

(B)MACI = 3.00

REFERENCE INFORMATION	
SREF	2,4210 SQ. FT.
LRFF	14,2440 IN.
BRFF	28,1004 IN.
YRFF	32,3610 IN.
ZRFF	3,0000 IN.
SCALE	11,2500 IN.
SCALE	1,0000 IN.

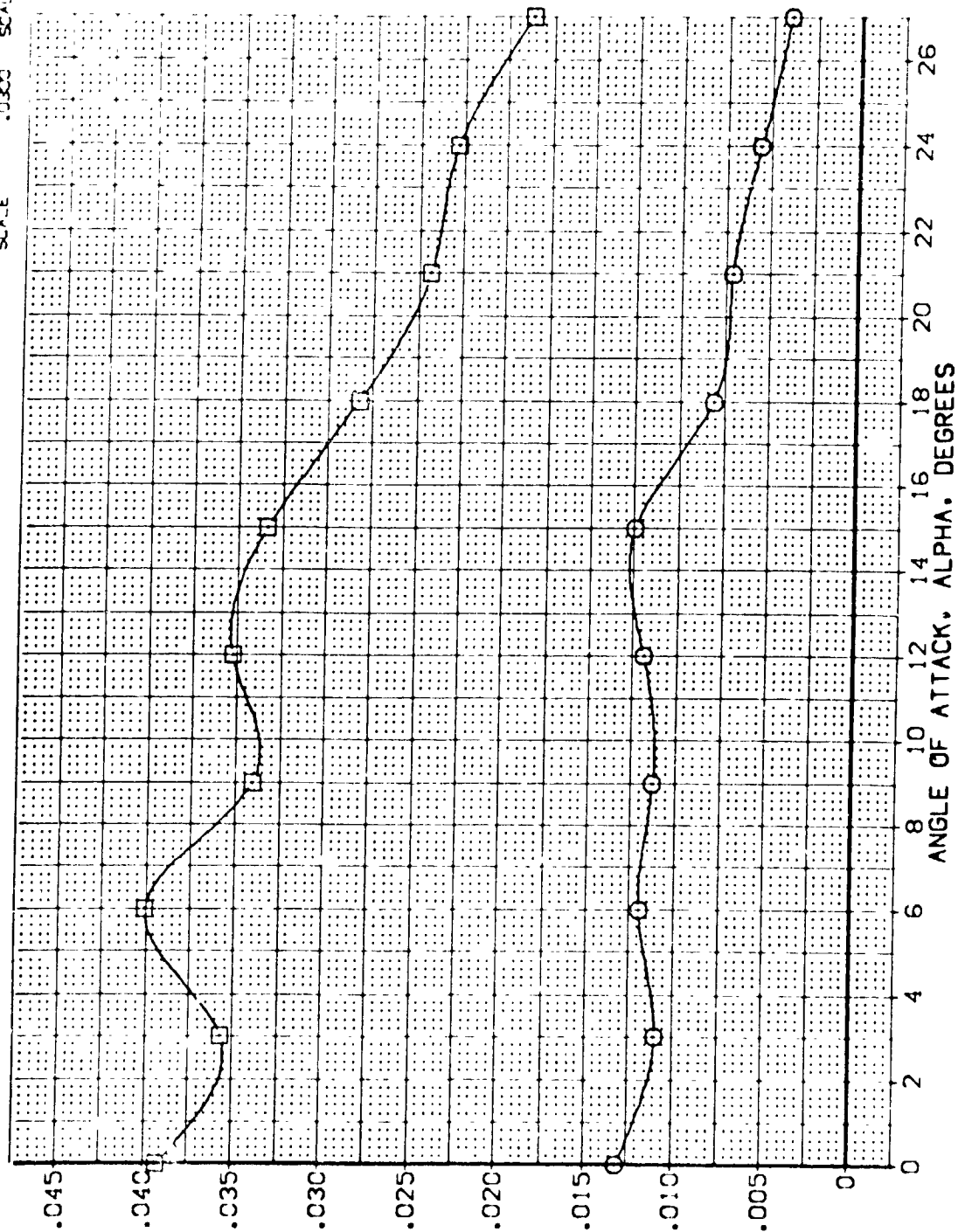

$$[C]_{AC} = 3.50$$

INCREMENTAL PITCHING MOMENT COEFFICIENT (FWD C.G.), (CMFWD

FIG. 9 SPEEDBRAKE EFFECTS

$$[A]_{AC-I} = 2.50$$

INCREMENTAL PITCHING MOMENT COEFFICIENT (FWD C.G.), DCMFWD


$$[B]_{MACI} = 3.00$$

DATA SET SYMBOL: (DE-011) (7E-038) CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C H F V I V NOT: RVUL ARC 87-747 BASIC B C H F V I V NOT: RVUL

ELEVON	AILERON	BOF CAP	RUDDER	REFERENCE INFORMATION
.000	.000	.000	.000	2.4210 SQ.F.T.
.000	.000	.000	.000	14.2440
.000	.000	.000	.000	32.3010
.000	.000	.000	.000	11.2500
.000	.000	.000	.000	10.300
.000	.000	.000	.000	10.300

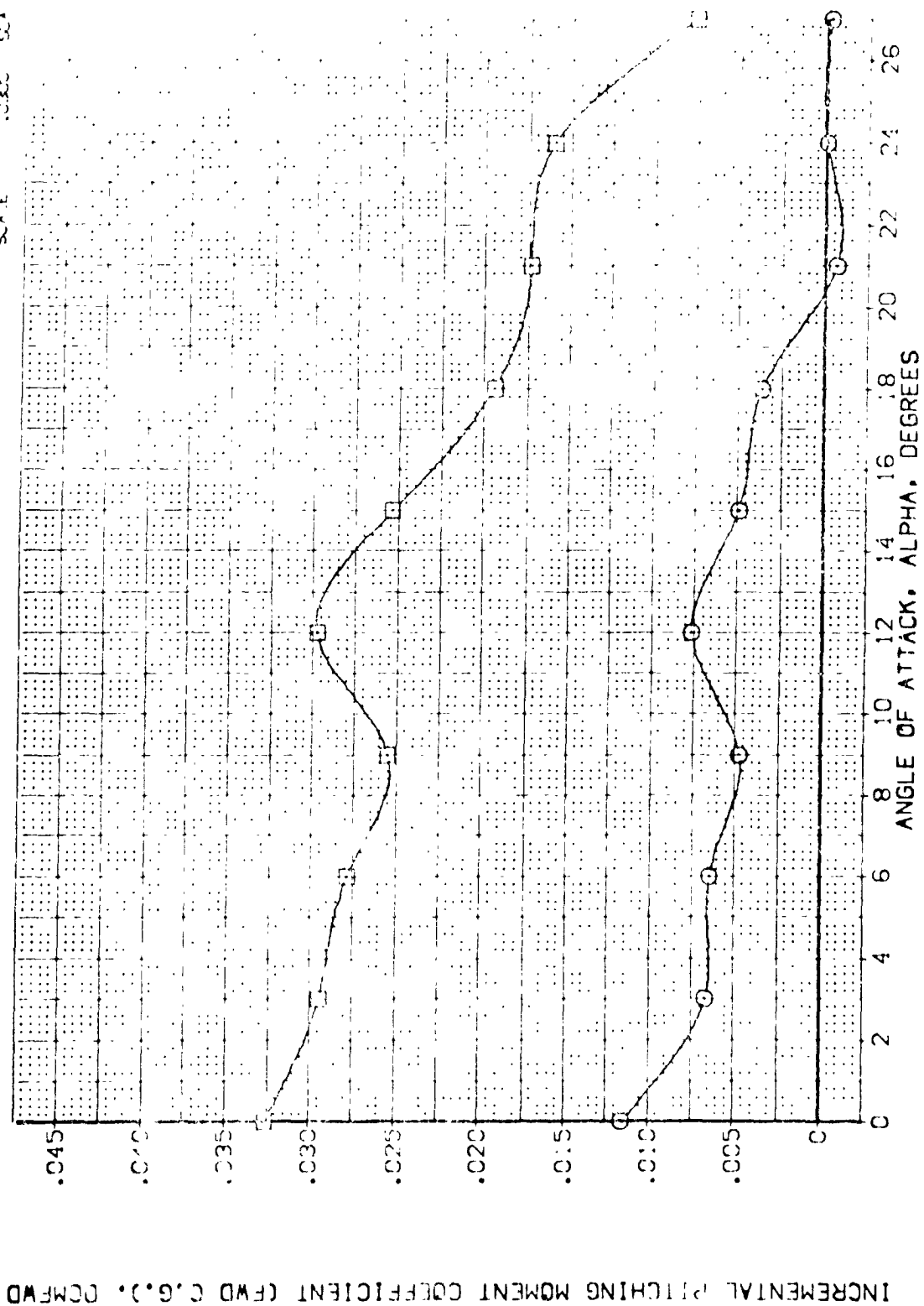


FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL: **CONF** **IGURATION** **DESCRIPTION**

(DELO11) ARC 87-747 OAS3C B C M F V V NOT: RV/L

(ALC38) ARC 87-747 OAS3C B C M F V V NOT: RV/L

ELEVON: .000 AILRON: .000 BOFLAP: .000 RUDDER: .000

REFERENCE INFORMATION

SPREF: 2.4213 SQ FT.

REF: 14.2442

BREF: 28.1004

YMRP: 32.3010

ZMRP: .0000

SCALE: 11.2500

SCALE: .0000

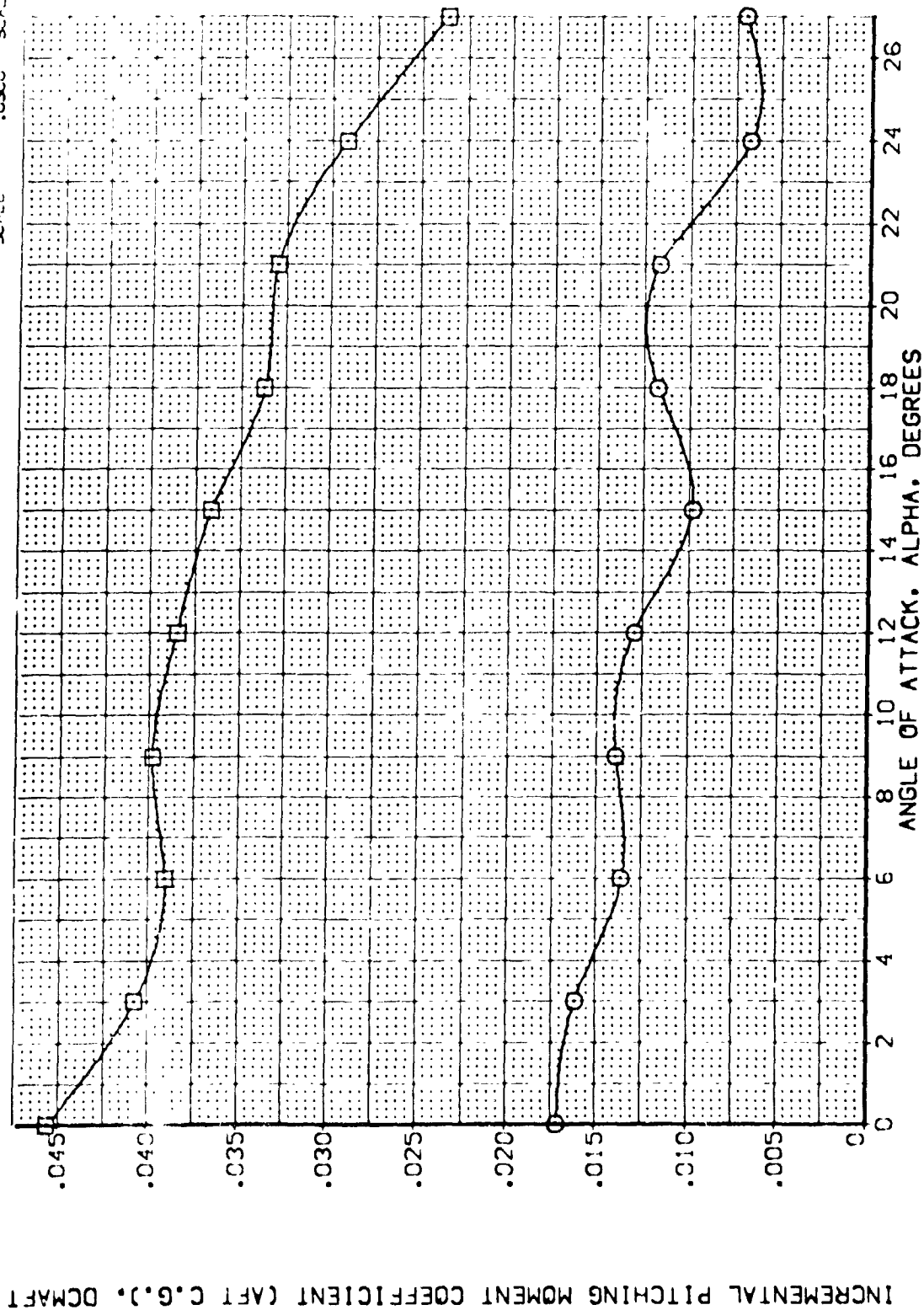


FIG. 9 SPEEDBRAKE EFFECTS

(A)  $V_{ACH} = 2.50$

DATA SET SYMBOL: CONFIGURATION DESCRIPTION:  
 {CELO11} ARC 87-747 OAS3C B C M F VI V NOM, RV/L  
 {VELC38} ARC 87-747 OAS3C B C M F VI V NOM, RV/L

ELEVON: .000  
 AIRLON: .000  
 BOFLAP: -11.700  
 RUDLER: .000

REFERENCE INFORMATION:  
 SREF: 2.4213  
 LBREF: 14.2440  
 XBREF: 28.1004  
 YMBD: 32.3010  
 ZMBD: 11.0000  
 SCALE: 11.0000

INCREMENTAL PITCHING MOMENT COEFFICIENT (AFT C.G.), DCMAF1

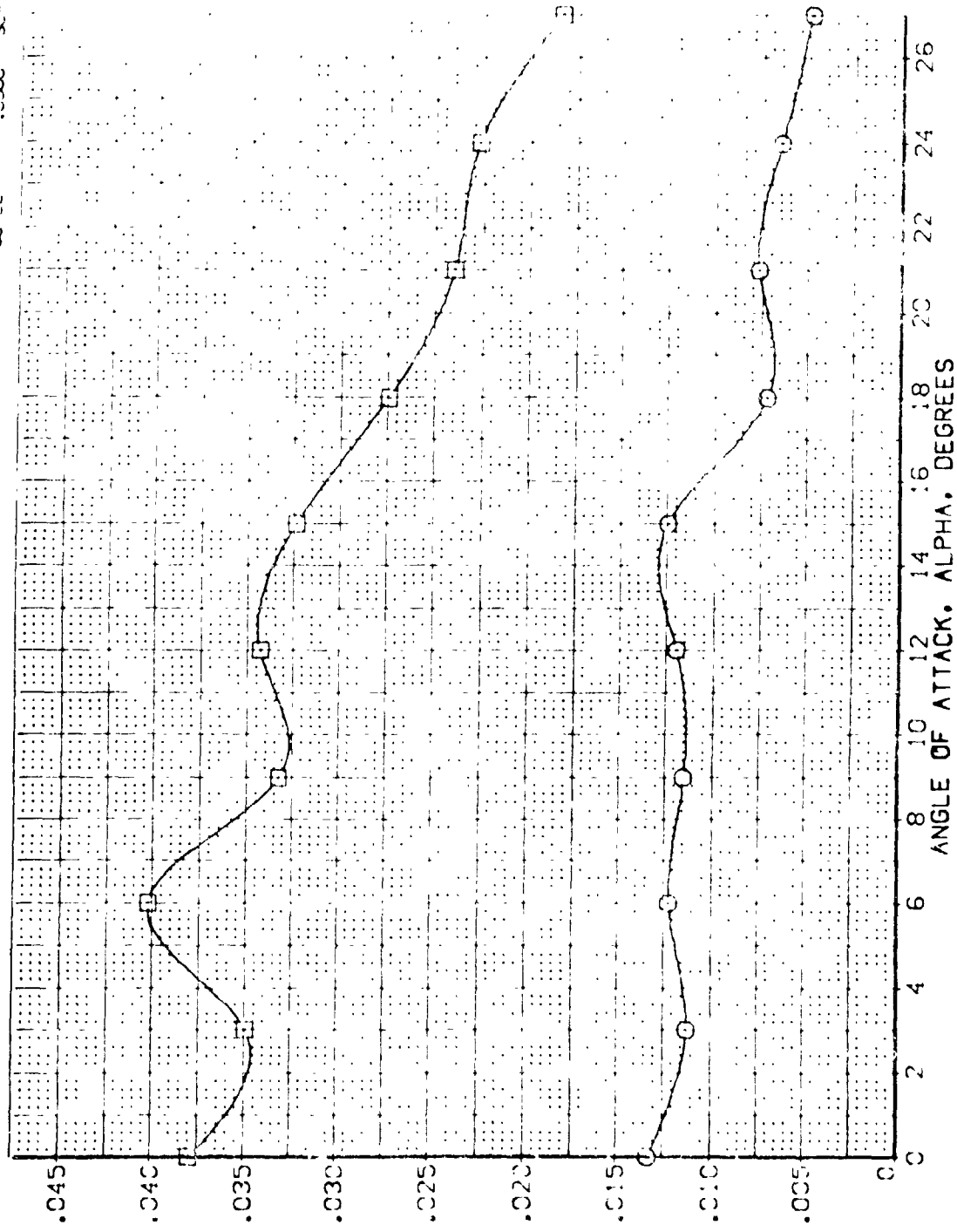
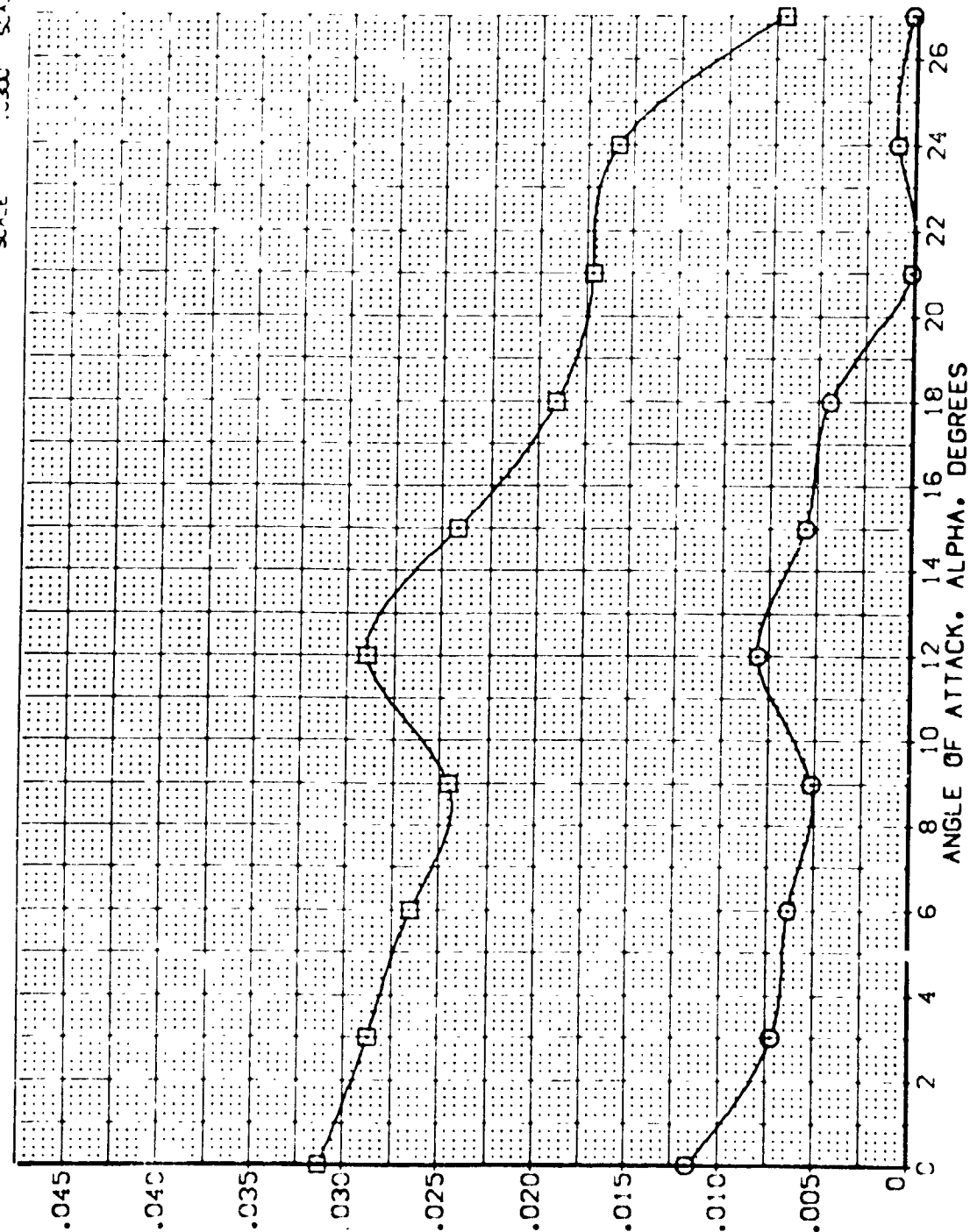


FIG. 9 SPEEDBRAKE EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL: [ ]  
 (OELO11)  
 (YELC38)  
 CONFIGURATION DESCRIPTION:  
 ARC 87-747 CAS3C B C M F V V  
 ARC 87-747 CAS3C B C M F V V  
 NOM: RM/L  
 NOM: RM/L  
 ELEVON: .000  
 AILERON: .000  
 BOFLAP: .000  
 RU DER: .000  
 REFERENCE INFORMATION:  
 SREF: 2.4210  
 LREF: 14.2440  
 BREF: 28.1004  
 XREF: 32.3013  
 YREF: .0000  
 ZREF: 11.2500  
 SCALE: .0000  
 SCALE: .0000



INCREMENTAL PITCHING MOMENT COEFFICIENT (AFT C.G.), DCMFT

FIG. 9 SPEEDBRAKE EFFECTS

(C)MACH = 3.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BD/LAP	SPOBRK	REFERENCE INFORMATION
[TEL010]	ARC 87-747 D453C B C M F V1	.000	16.300	55.000	SREF 7.4213
[TEL008]	ARC 87-747 D453C B C M F V1	.000	16.300	55.000	SREF 12.4440
[TEL019]	ARC 87-747 D453C B C M F V1	.000	16.300	55.000	SREF 39.3010
		15.000	15.000	55.000	YREF 0.0000
		15.000	15.000	55.000	ZREF 0.0000
					SCALE 0.0000

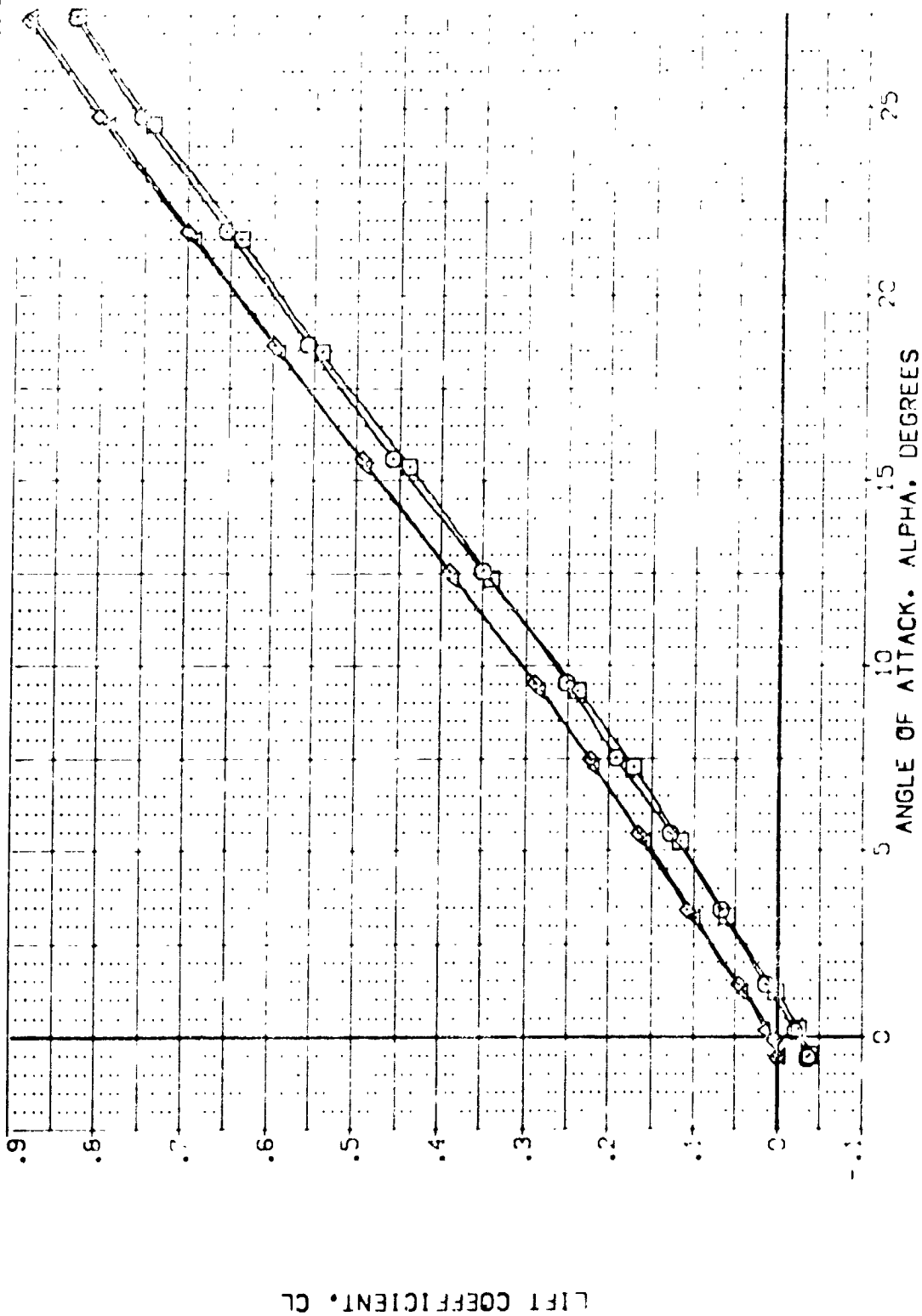


FIG. 10 SEALED ELEVON SPLIT EFFECTS

ANGLE OF ATTACK = 2.53

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	SEAL.E/L	ELEVON	AILERON	BOE LAR	SPD/BRK	REFERENCE INFORMATION
TEL-010	ARC 87-747 CAS3C B C H F V I	V			.000	.000	16.300	55.000	SREF 2.4210
TEL-010	ARC 87-747 CAS3C B C H F V I	V			.000	.000	16.300	55.000	L REF 14.7440
TEL-010	ARC 87-747 CAS3C B C H F V I	V			.000	.000	16.300	55.000	EXP F 78.1000
TEL-010	ARC 87-747 CAS3C B C H F V I	V			.000	.000	16.300	55.000	EXP F 32.3010
TEL-010	ARC 87-747 CAS3C B C H F V I	V			.000	.000	16.300	55.000	YARD .0000
TEL-010	ARC 87-747 CAS3C B C H F V I	V			.000	.000	16.300	55.000	ZARD .0000
TEL-010	ARC 87-747 CAS3C B C H F V I	V			.000	.000	16.300	55.000	SCALE 11.2500
TEL-010	ARC 87-747 CAS3C B C H F V I	V			.000	.000	16.300	55.000	SCALE 11.2500

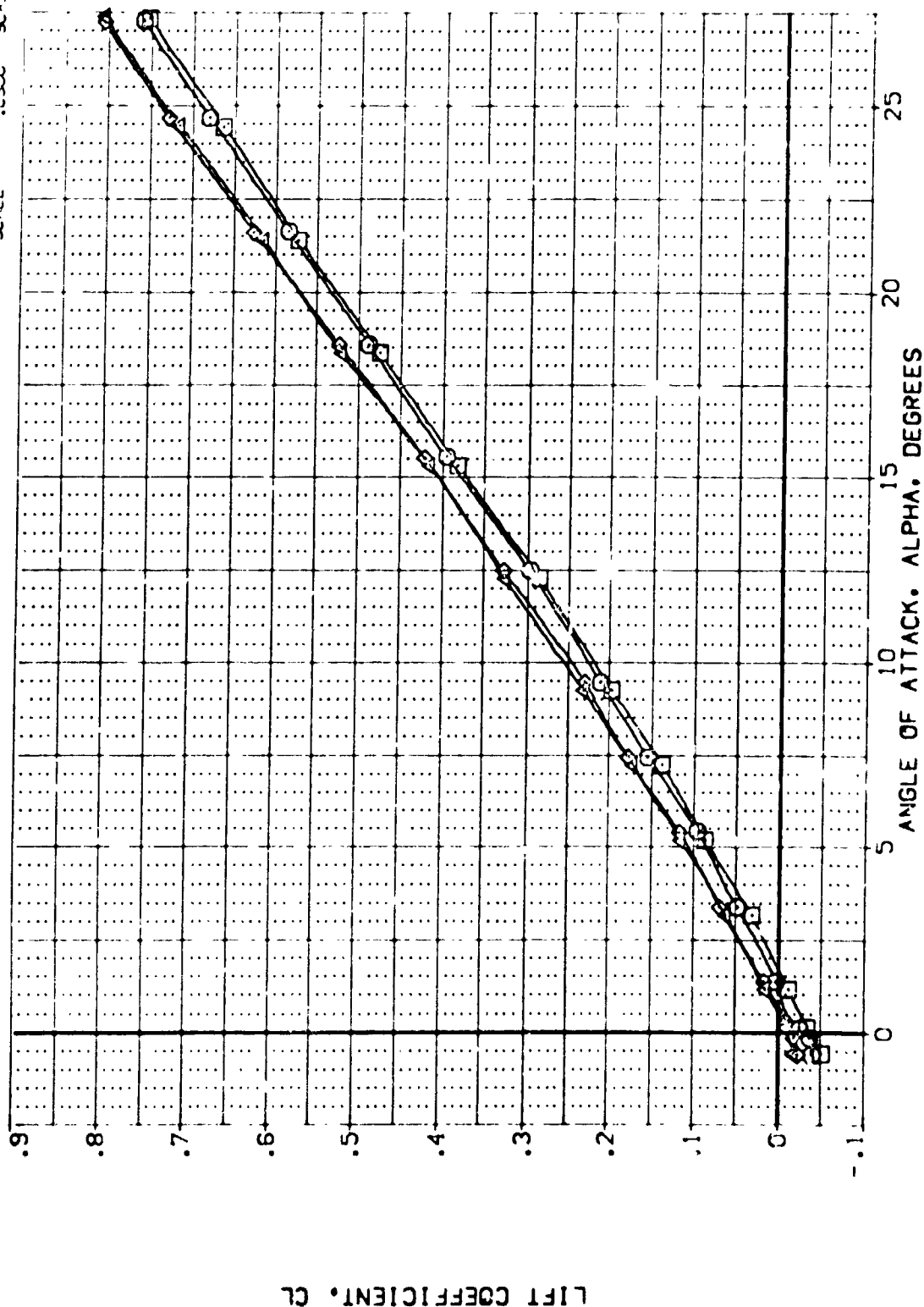


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOT	RV/L	SEAL/EL	ELEVON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(TELO10)	ARC 87-747 OAS3C B C M F VI V	NOT	RV/L	SEAL/EL	.000	.000	16.300	55.000	SREF 2.4210
(TELO50)	ARC 87-747 OAS3C B C M F VI V	NOT	RV/L	SEAL/EL	.000	.000	16.300	55.000	LREF 14.2140
(TELO08)	ARC 87-747 OAS3C B C M F VI V	NOT	RV/L	SEAL/EL	.000	.000	16.300	55.000	SREF 26.1004
(TELO49)	ARC 87-747 OAS3C B C M F VI V	NOT	RV/L	SEAL/EL	.000	.000	16.300	55.000	YMRO 31.3010
									YMRO 11.2500
									SCALE 10.300

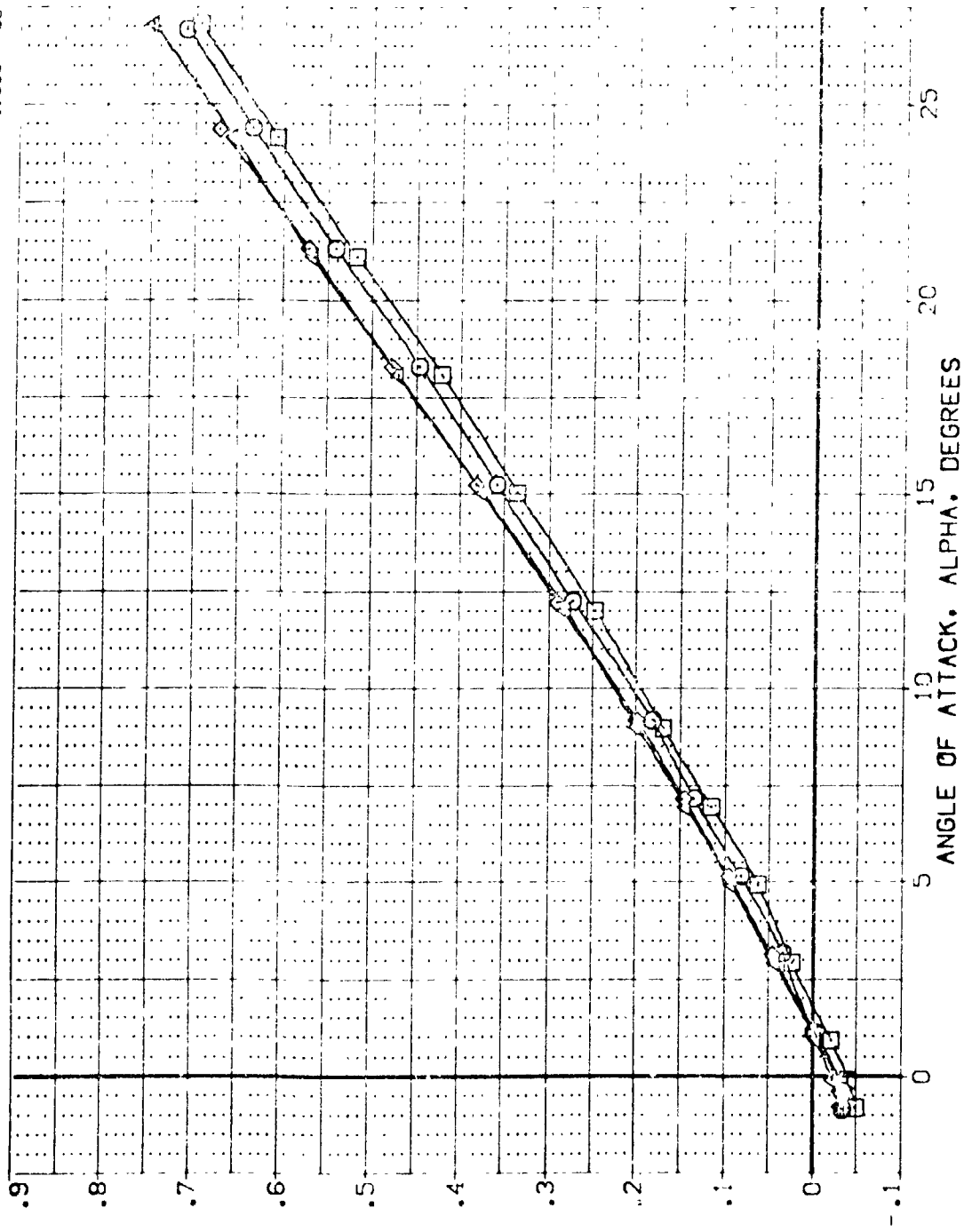


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	SEAL/EL	ELEVON	AIR/ON	BO/LAP	SP/DRM	REFERENCE INFORMATION
TEL-001	ARC 87-747 CAS3C B C M F V	V	RV/L	SEAL/EL	.000	.000	16.300	55.000	SPREF 2.4210
TEL-002	ARC 87-747 CAS3C B C M F V	V	RV/L	SEAL/EL	.000	.000	16.300	55.000	SPREF 14.2440
TEL-003	ARC 87-747 CAS3C B C M F V	V	RV/L	SEAL/EL	.000	.000	16.300	55.000	SPREF 28.1004
TEL-004	ARC 87-747 CAS3C B C M F V	V	RV/L	SEAL/EL	.000	.000	16.300	55.000	SPREF 37.3000
TEL-005	ARC 87-747 CAS3C B C M F V	V	RV/L	SEAL/EL	.000	.000	16.300	55.000	SPREF 11.17500
TEL-006	ARC 87-747 CAS3C B C M F V	V	RV/L	SEAL/EL	.000	.000	16.300	55.000	SPREF 10.300

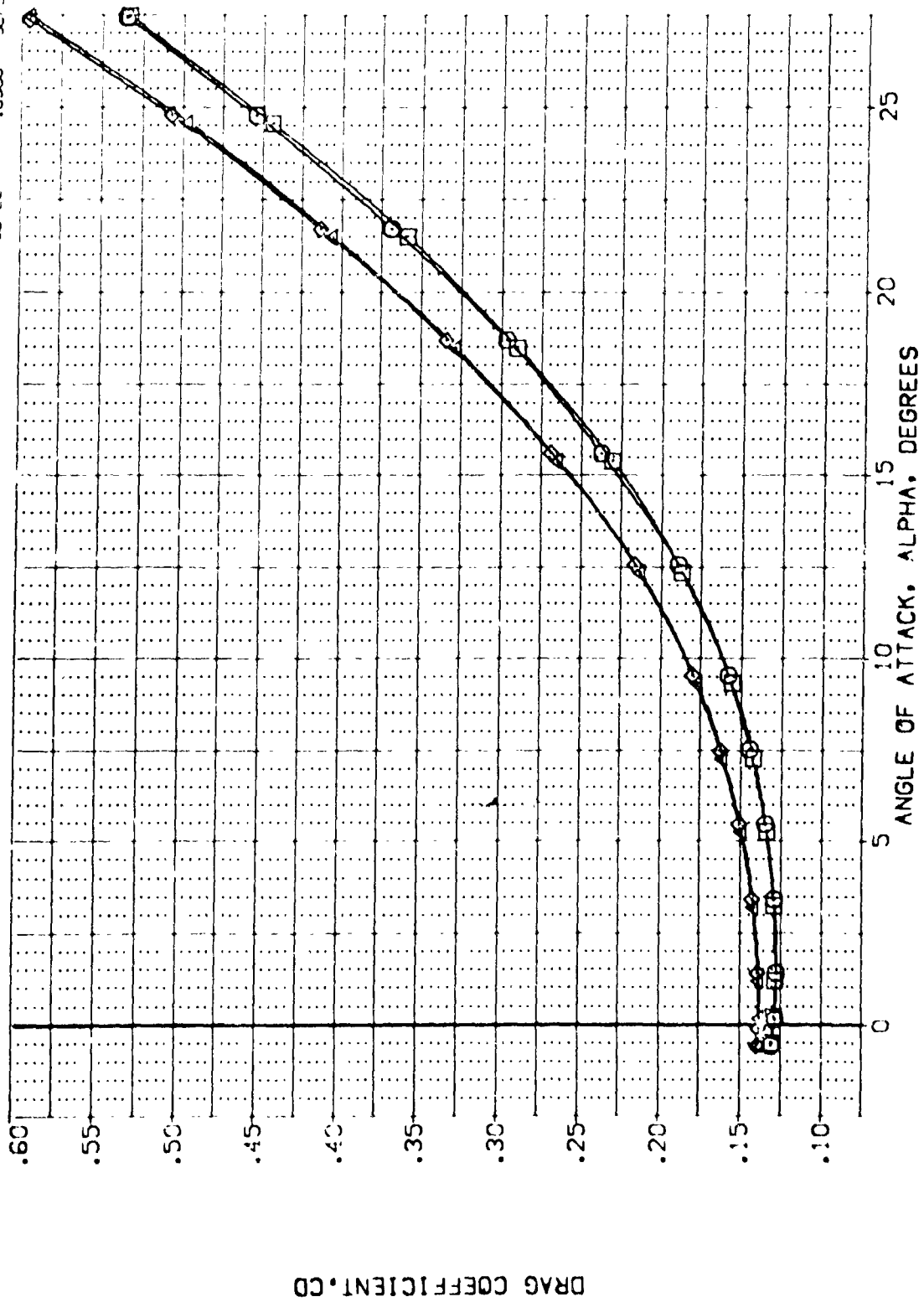


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON:	R/V/L	SEAL:EL	ELEVON	AILRON	BOFLAP	SPDRBK	REFERENCE INFORMATION
[TELO:10]	ARC 37-747 OAS3C B C M F VI V				.000	.000	16.300	55.000	SREF 2.4210 50. FT.
[TELO:50]	ARC 37-747 OAS3C B C M F VI V				.000	.000	16.300	55.000	LREF 14.2440
[TELO:100]	ARC 37-747 OAS3C B C M F VI V				15.000	.000	16.300	55.000	BREF 78.1000
[TELO:150]	ARC 37-747 OAS3C B C M F VI V				15.000	.000	16.300	55.000	XREF 32.3010
[TELO:200]	ARC 37-747 OAS3C B C M F VI V								YREF .0000
[TELO:250]	ARC 37-747 OAS3C B C M F VI V								ZREF 11.7500
[TELO:300]	ARC 37-747 OAS3C B C M F VI V								SCALE .0300

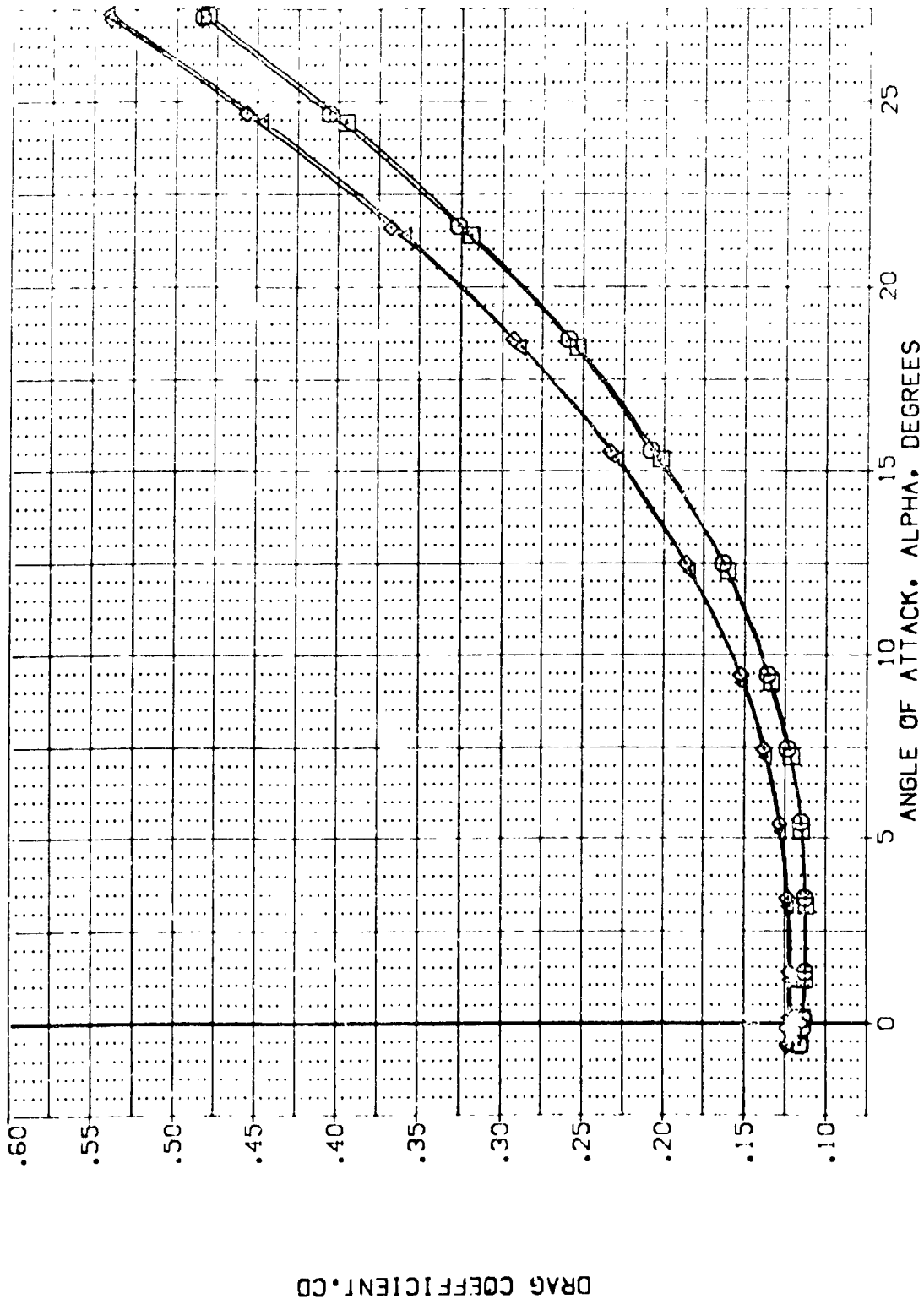


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM.	RN/L	SEAL.EL	ELEVON	ATLRON	BDLAP	SPYOK	REFERENCE INFORMATION
ELC13	ARC 87-747 CASSC B C M F V	V			.000	.000	16.300	55.00	SREF 2.4210 SQ.FT.
ELC14	ARC 87-747 CASSC B C M F V	V			.000	.000	16.300	55.00	LRFF 14.7440
ELC15	ARC 87-747 CASSC B C M F V	V			.000	.000	16.300	55.00	BRFF 78.1004
ELC16	ARC 87-747 CASSC B C M F V	V			.000	.000	16.300	55.00	YREF 32.9010
ELC17	ARC 87-747 CASSC B C M F V	V			.000	.000	16.300	55.00	ZREF 11.2500
ELC18	ARC 87-747 CASSC B C M F V	V			.000	.000	16.300	55.00	SCALE 0.000

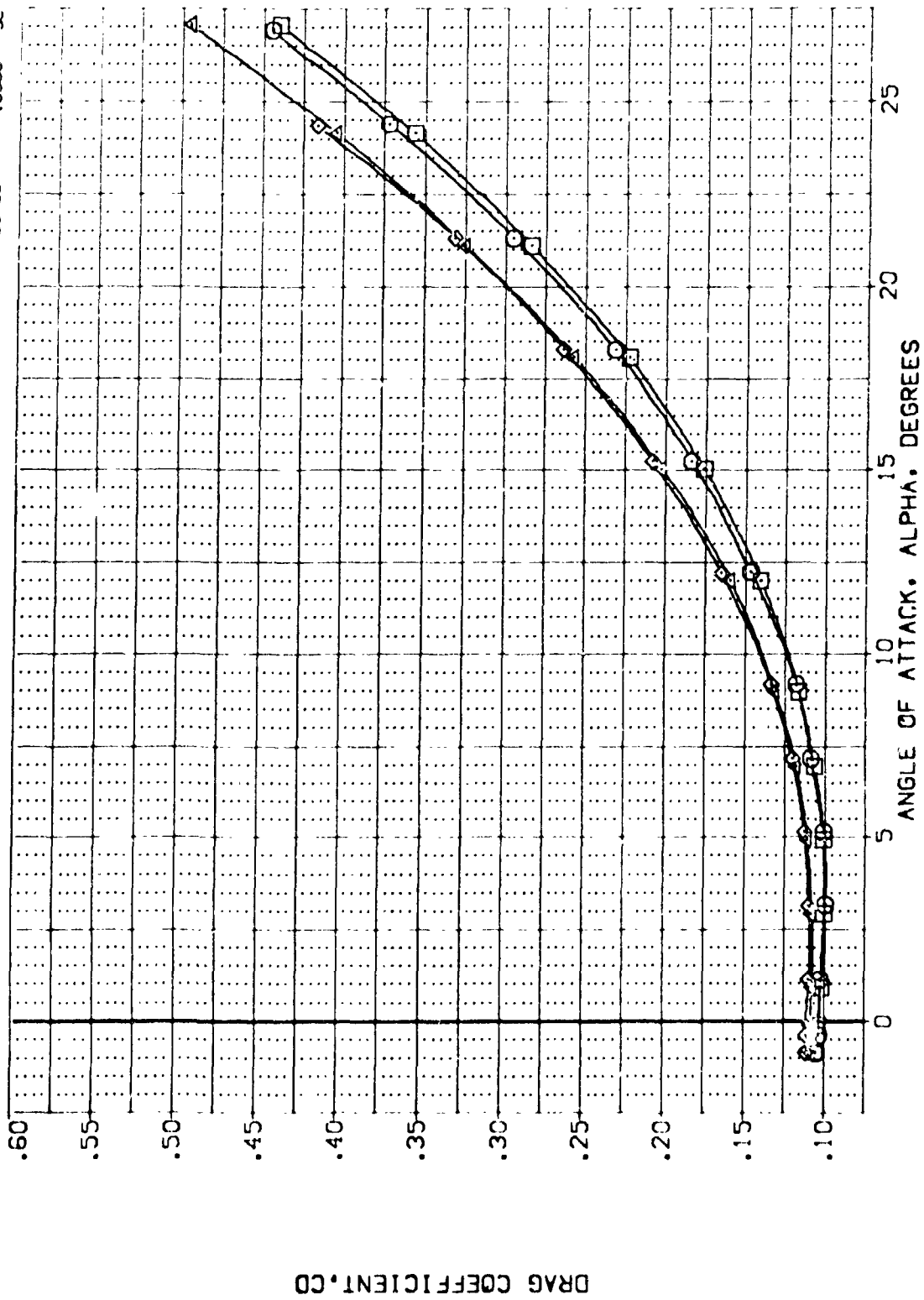


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
TEL010	ARC 87-747 BASIC B C M F V	SREF 2.4210 SQ. FT.
TEL050	ARC 87-747 BASIC B C M F V	LREF 14.2440
TEL008	ARC 87-747 BASIC B C M F V	BREF 28.1004
TEL049	ARC 87-747 BASIC B C M F V	XREF 32.3000
		YREF 0.0000
		ZREF 11.7500
		SCALE 1.0300

ELEVON    AILRON    BOFLAP    SPOBRK

ELEVON	AILRON	BOFLAP	SPOBRK
.000	.000	16.300	55.000
.000	.000	16.300	55.000
.000	.000	16.300	55.000
.000	.000	16.300	55.000

RM/L    SEAL.EL    RM/L    SEAL.EL

RM/L	SEAL.EL	RM/L	SEAL.EL
NON	.000	NON	.000
NON	.000	NON	.000
NON	.000	NON	.000
NON	.000	NON	.000

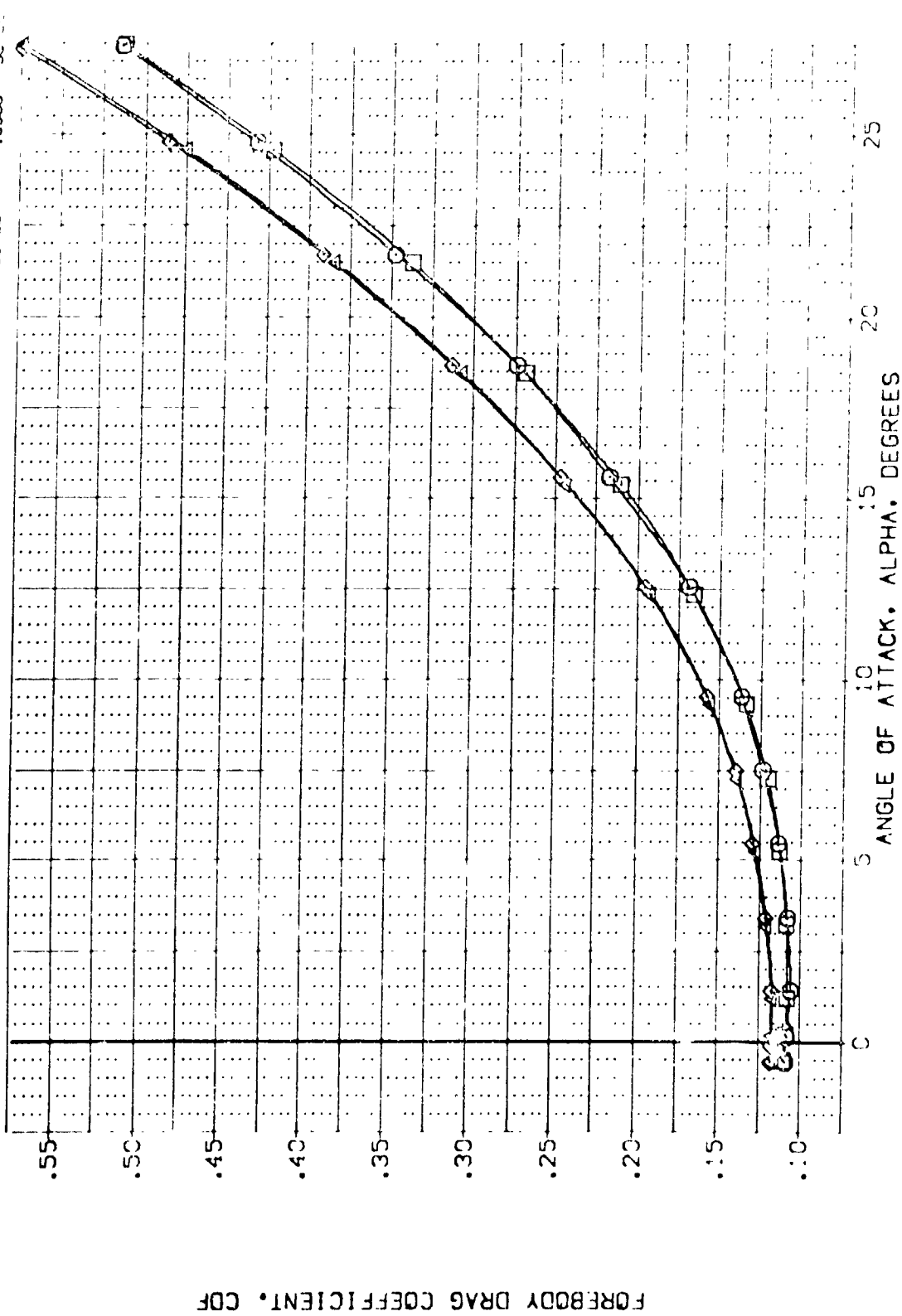


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(A)MAC = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	NOT	RNVL	SEAL.EL	ELEVON	ATILRON	BDFLAP	SPOBPM	REFERENCE INFORMATION
TE-010	D	ARC 87-747 CAS3C B C M F VI V	NOT	RNVL	SEAL.EL	.000	.000	16.300	55.000	SREF 2.4210 SO.FT.
TE-050	X	ARC 87-747 CAS3C B C M F VI V	NOT	RNVL	SEAL.EL	.000	.000	16.300	55.000	LREF 14.2440
TE-008	X	ARC 87-747 CAS3C B C M F VI V	NOT	RNVL	SEAL.EL	15.000	.000	16.300	55.000	BREF 28.1000
TE-049	Z	ARC 87-747 CAS3C B C M F VI V	NOT	RNVL	SEAL.EL	15.000	.000	16.300	55.000	YREF 37.3010
										YREF .0000
										ZREF 11.2500
										SCALE .0300

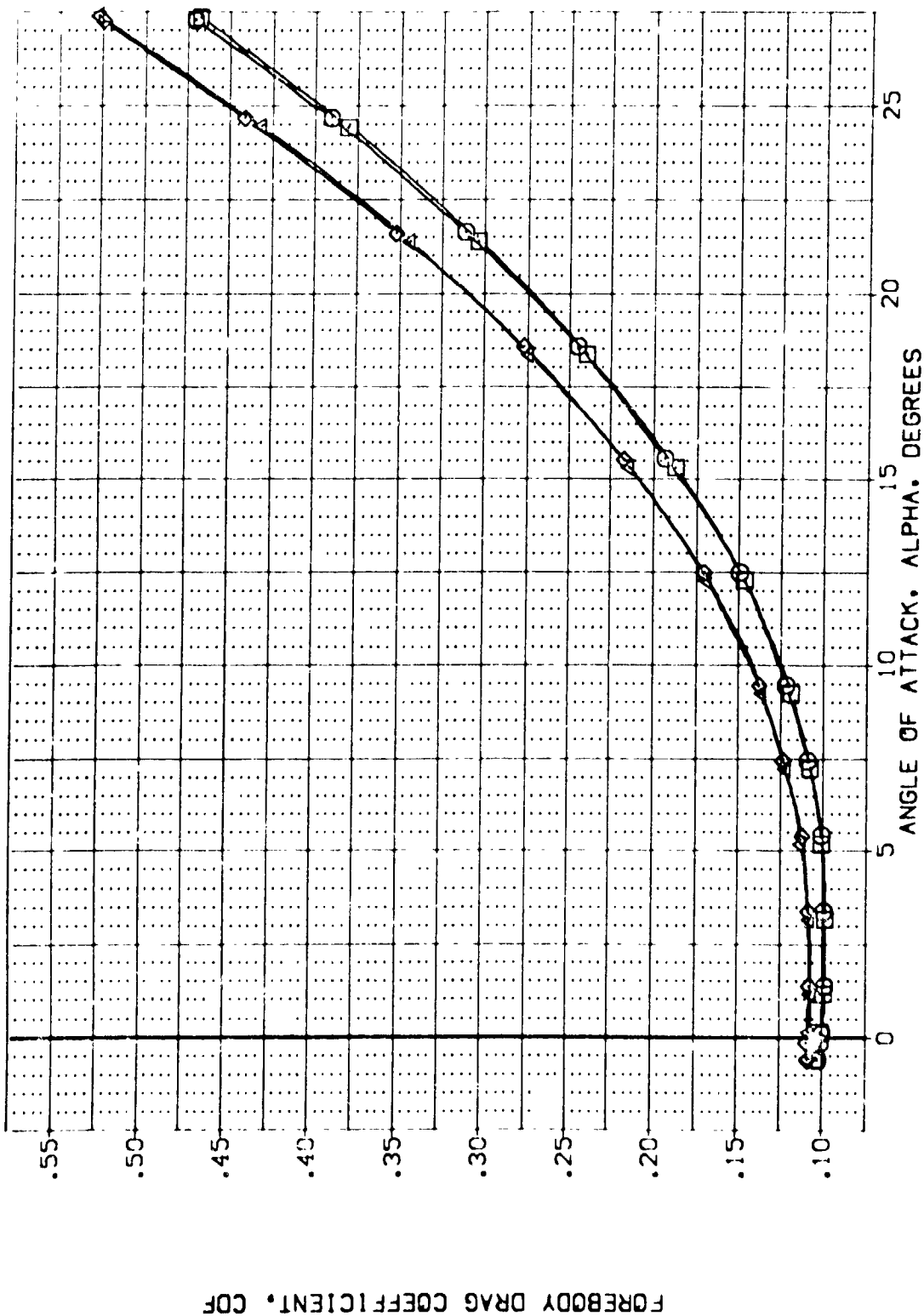


FIG. 10 SEALED FLEVON SPLIT EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOTES	PRVL	SEAL EL	ELEVON	AIRLON	BOF LAP	SPDRM	REFERENCE INFORMATION
(TE-019)	ARC 87-747 C453C B C M F V	V	NOT	PRVL	.000	.000	6.300	55.000	SPREF 2.4210
(TE-050)	ARC 87-747 C453C B C M F V	V	NOT	PRVL	.000	.000	6.300	55.000	DEF 14.2440
(TE-008)	ARC 87-747 C453C B C M F V	V	NOT	PRVL	.000	.000	6.300	55.000	SPREF 18.1001
(TE-049)	ARC 87-747 C453C B C M F V	V	NOT	PRVL	.000	.000	6.300	55.000	ZMPP 11.2000
									SCALE 0.300

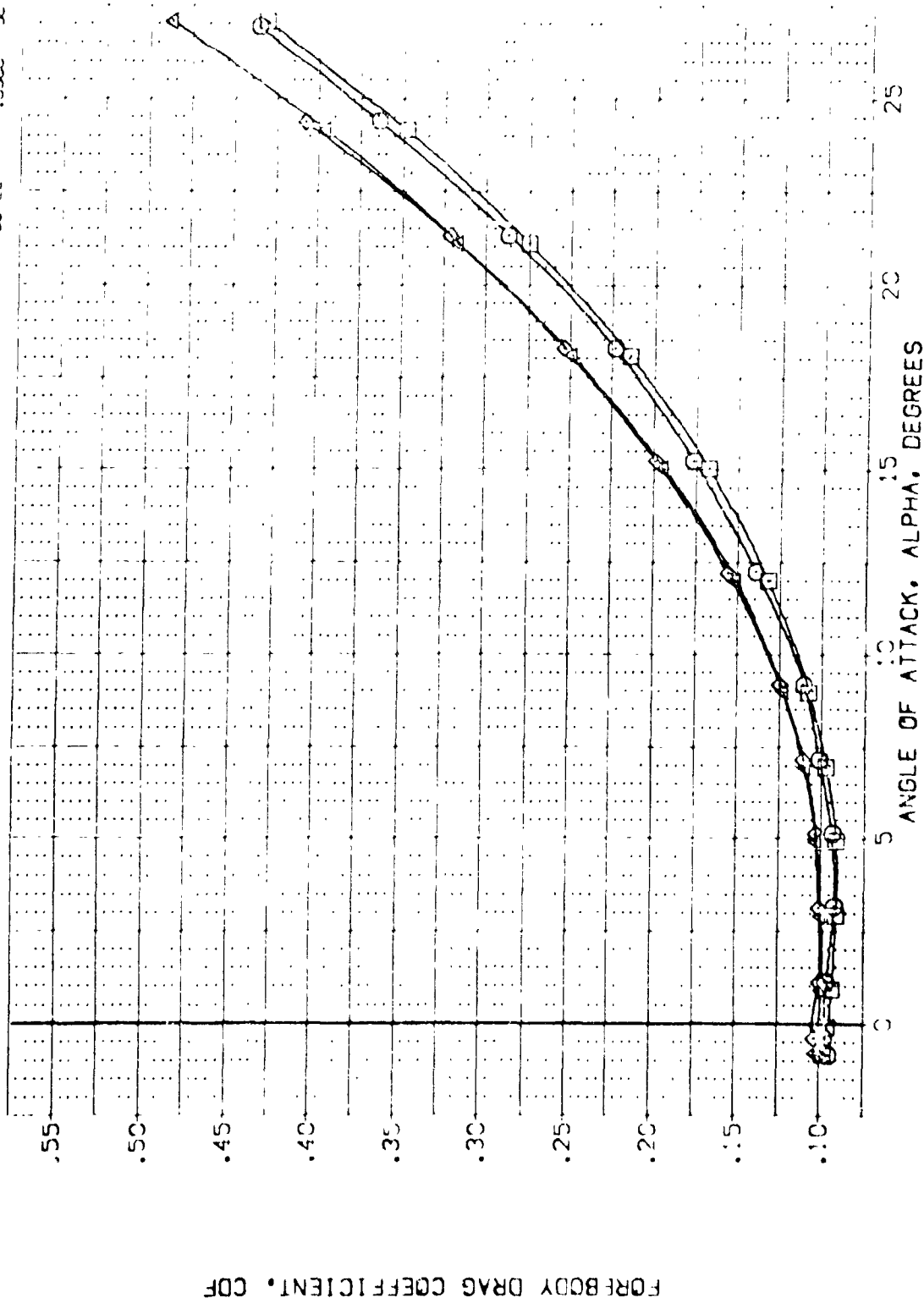


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM	RN/L	SEAL, EL	ELEVON	AIRLON	BOLAP	SPDBRK	REFERENCE INFORMATION
(TEL010)	ARC 87-747 C-53C B C M F V	V			.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
(TEL050)	ARC 87-747 C-53C B C M F V	V			.000	.000	16.300	55.000	REF 14.2440
(TEL008)	ARC 87-747 C-53C B C M F V	V			.000	.000	16.300	55.000	SREF 28.1004
(TEL049)	ARC 87-747 C-53C B C M F V	V			.000	.000	16.300	55.000	REF 37.3010
									YREF .0000
									ZREF 11.2500
									SCALE .0300

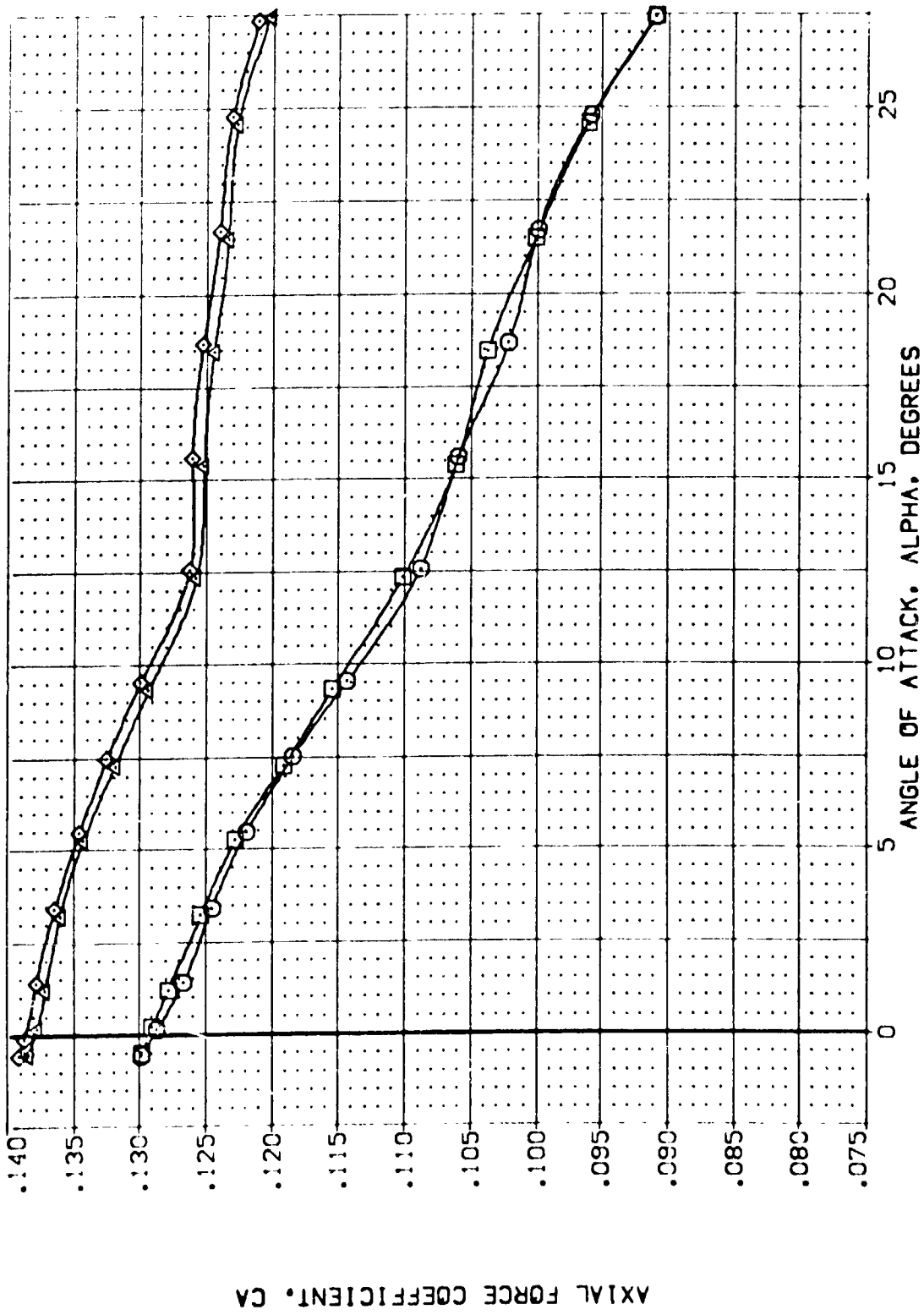


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(A) MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM.	FN/L	SCALE	ELEVON	AIRLON	BOFLAP	SPDBRN	REFERENCE INFORMATION
[TELO10]	ARC 87-747 GAS3C B C M F VI V	NOM.	FN/L	SCALE	.000	.000	16.300	55.000	SP F 2.4210 SQ.FT.
[TELO50]	ARC 87-747 GAS3C B C M F VI V	NOM.	FN/L	SCALE	.000	.000	16.300	55.000	SP F 14.2440
[TELO08]	ARC 87-747 GAS3C B C M F VI V	NOM.	FN/L	SCALE	15.000	.000	16.300	55.000	SP F 28.1004
[TELO49]	ARC 87-747 GAS3C B C M F VI V	NOM.	FN/L	SCALE	15.000	.000	16.300	55.000	SP F 37.3010

Y=000  
Z=000  
SCALE 11.2500  
SCALE

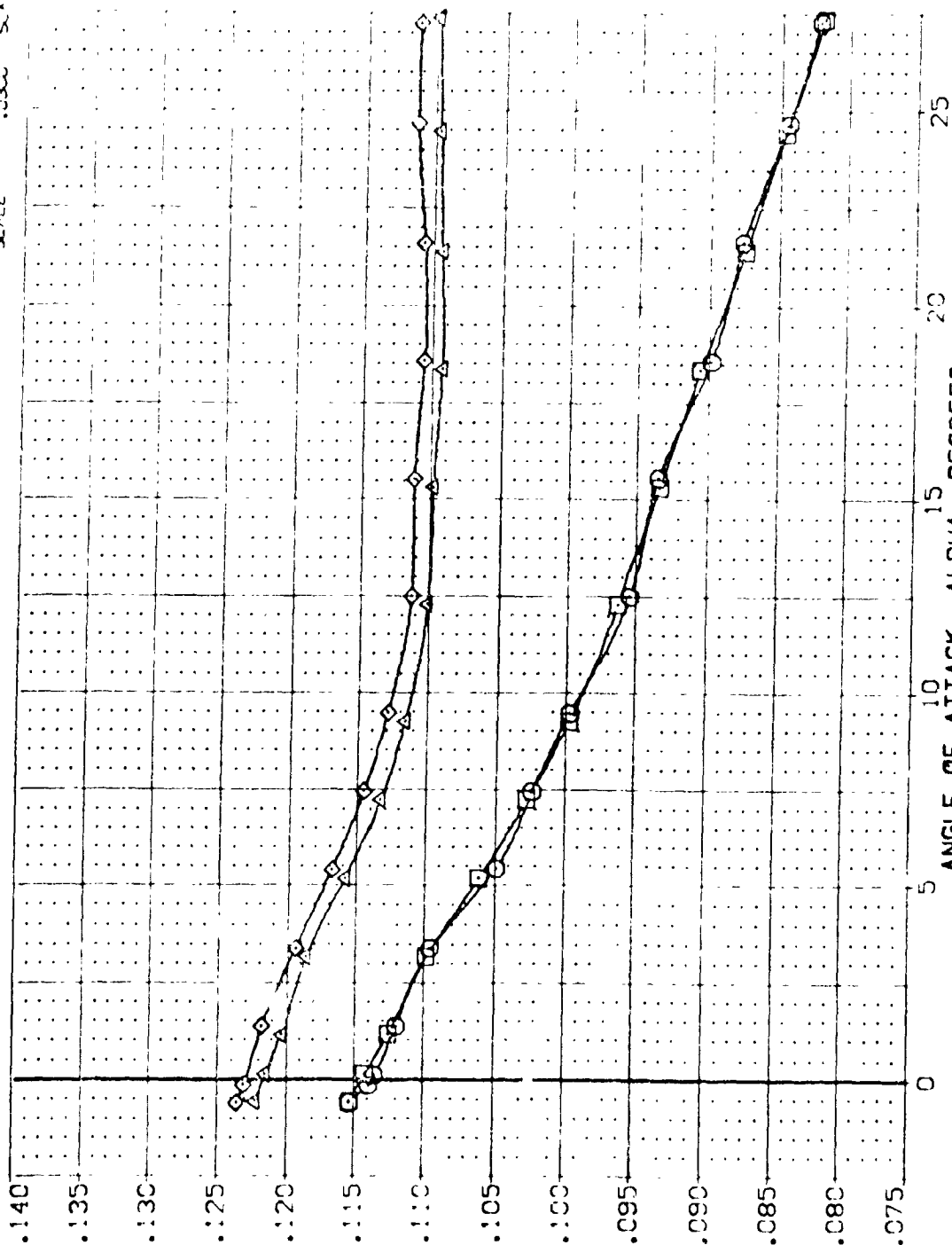


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B) MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

SYMBOL	CONFIGURATION	DESCRIPTION	NO.	RV/L	SEAL.EL	ELEVON	AILERON	BOE-LAP	SPDRBY	REFERENCE INFORMATION
ARC 87-747	CASCC	C M F V	V	NO.	RV/L	.000	.000	16.300	55.000	SREF 2.4210 SC.F.T.
ARC 87-747	CASCC	B C M F V	V	NO.	RV/L	.000	.000	16.300	55.000	UPREF 14.2440
ARC 87-747	CASCC	B C M F V	V	NO.	RV/L	15.000	.000	16.300	55.000	BRPF 28.1004
ARC 87-747	CASCC	B C M F V	V	NO.	RV/L	15.000	.000	16.300	55.000	YPRB 32.3010
										YPRB .0000
										ZPRB 11.7500
										SCALE .0300

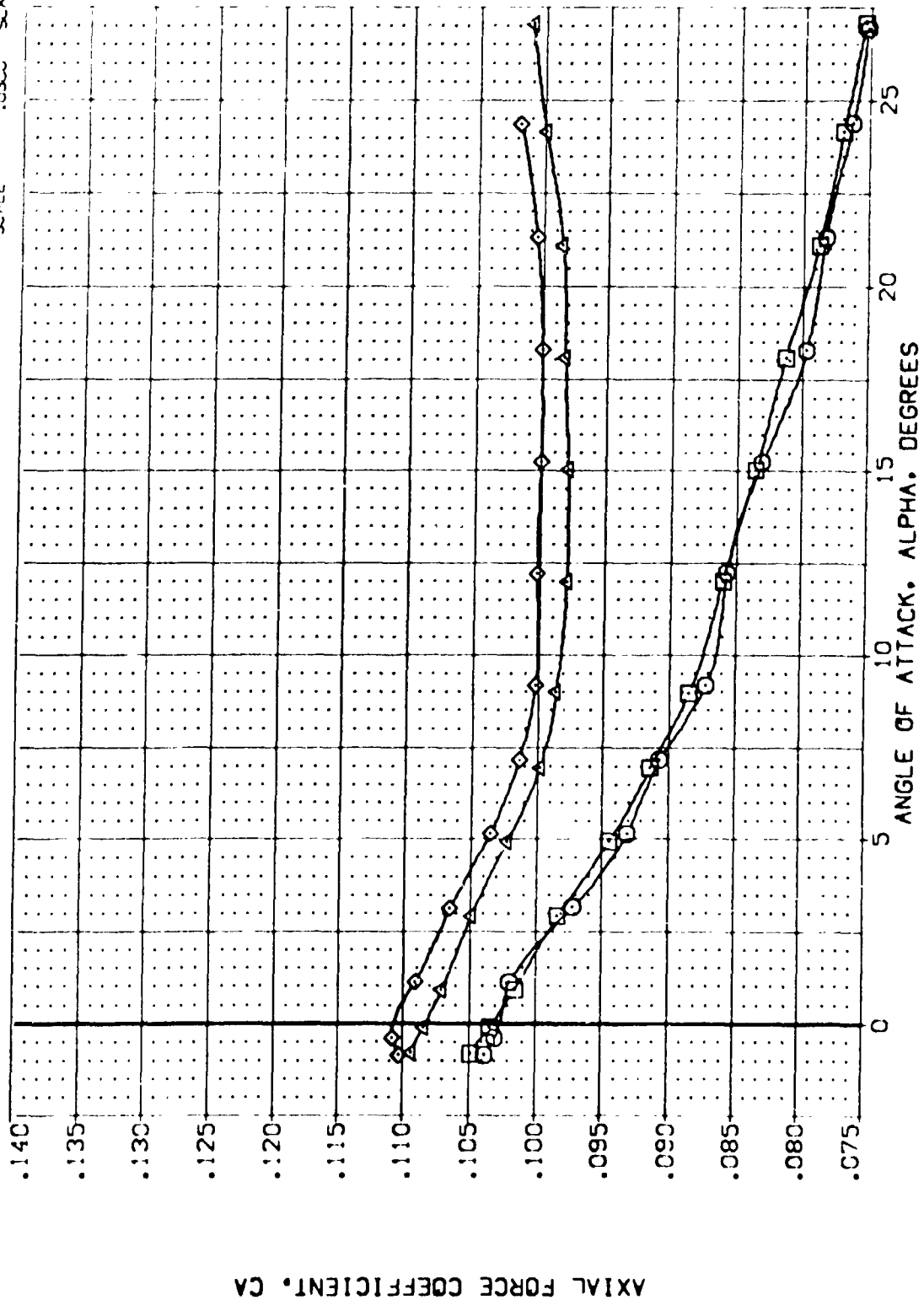


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	SEAL EL	ELEVON	AILERON	BOF LAP	SPOBRK	REFERENCE INFORMATION
(TEL010)	ARC 87-747 BASIC B C M F V	V	NO.	RV/L	.000	.000	16.300	55.000	SREF 2.4210 SQ. FT.
(TEL020)	ARC 87-747 BASIC B C M F V	V	NO.	RV/L	.000	.000	16.300	55.000	LREF 14.2440
(TEL008)	ARC 87-747 BASIC B C M F V	V	NO.	RV/L	15.000	.000	16.300	55.000	BREF 38.1004
(TEL049)	ARC 87-747 BASIC B C M F V	V	NO.	RV/L	15.000	.000	16.300	55.000	XREF 33.3010
									YREF .0000
									ZREF 11.7500
									SCALE .0300

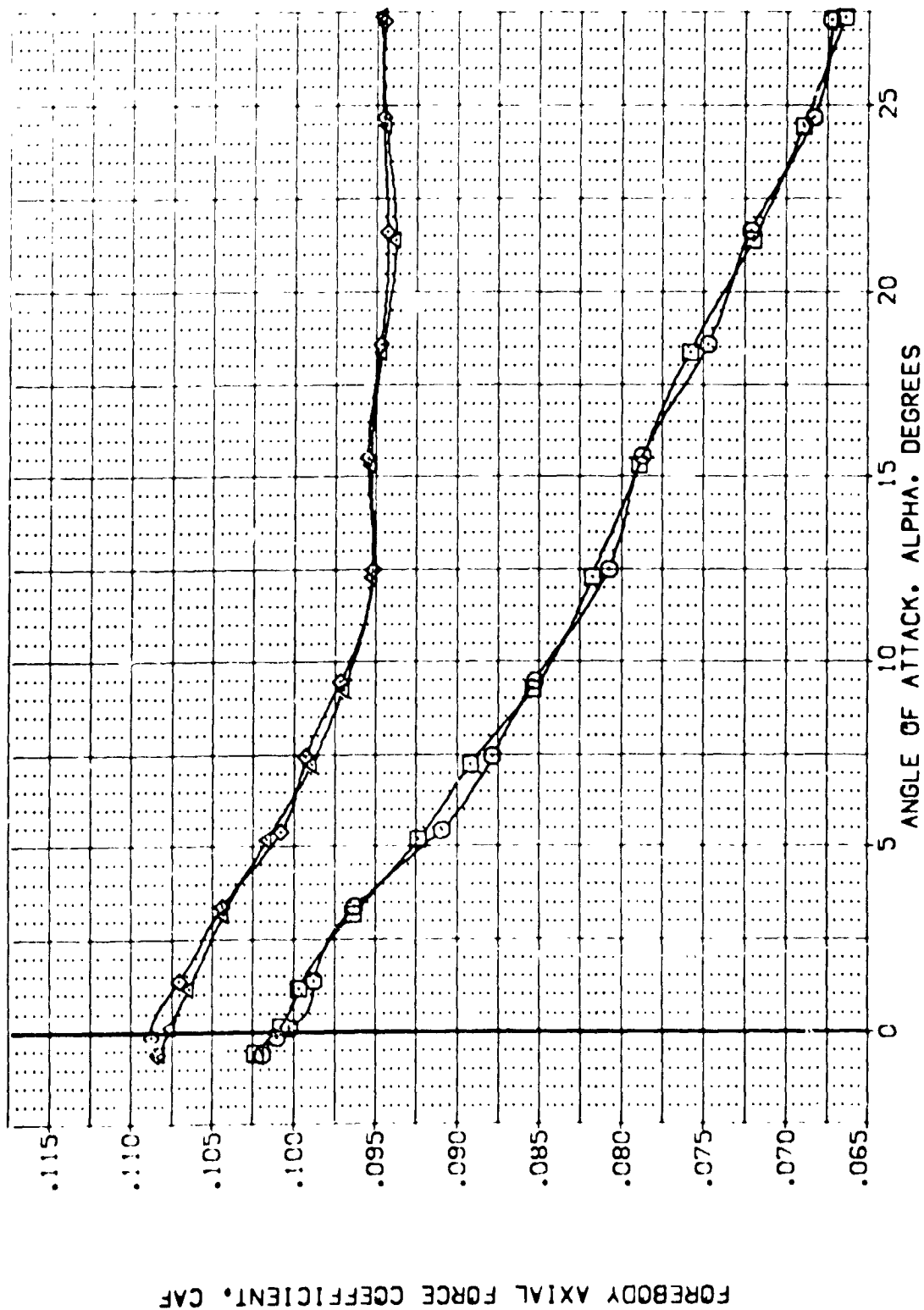


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	EDFLAP	SPOBRK	REFERENCE INFORMATION
[1] EL010	ARC 87-747 CASIC B C M F VI V	.000	.000	16.300	55.000	SREF 2.4210 SC.ET.
[2] EL050	ARC 87-747 CASIC B C M F VI V	.000	.000	16.300	55.000	SREF 14.2410
[3] EL008	ARC 87-747 CASIC B C M F VI V	.000	.000	16.300	55.000	SREF 18.1004
[4] EL049	ARC 87-747 CASIC B C M F VI V	.000	.000	16.300	55.000	SREF 32.3010
						YMRD .0000
						ZMRD .0000
						SCALE 11.0300

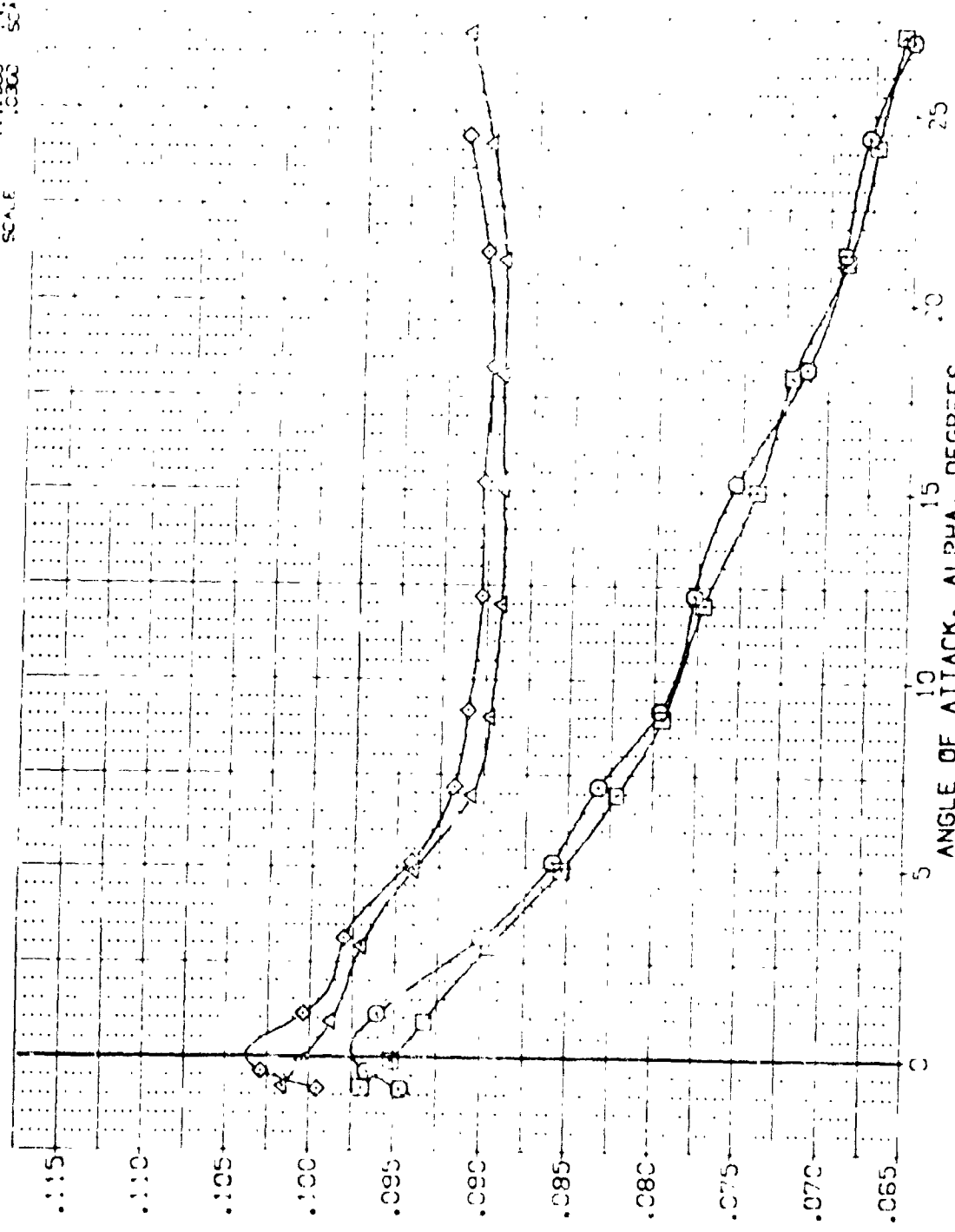


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MAC = 3.50

DATA SET	SYMBOL	CLUSTER	DESCRIPTION	NO.	RV/L	SEAL,EL	ELEVON	AIRLON	BO, LAP	SP, ORK	REFERENCE INFORMATION
TEL010	□	ARC 87-747	DA53C B C M F V	1	RV/L	SEAL,EL	.000	.000	16.300	55.000	SREF 2.4210 SC,LT.
TEL050	□	ARC 87-747	DA53C B C M F V	2	RV/L	SEAL,EL	.000	.000	16.300	55.000	LREF 14.2440
TEL008	□	ARC 87-747	DA53C B C M F V	3	RV/L	SEAL,EL	.000	.000	16.300	55.000	BREF 78.0001
TEL019	□	ARC 87-747	DA53C B C M F V	4	RV/L	SEAL,EL	.000	.000	16.300	55.000	XREF 57.3010
											YREF .0000
											ZREF 1.2500
											SCALE .0300

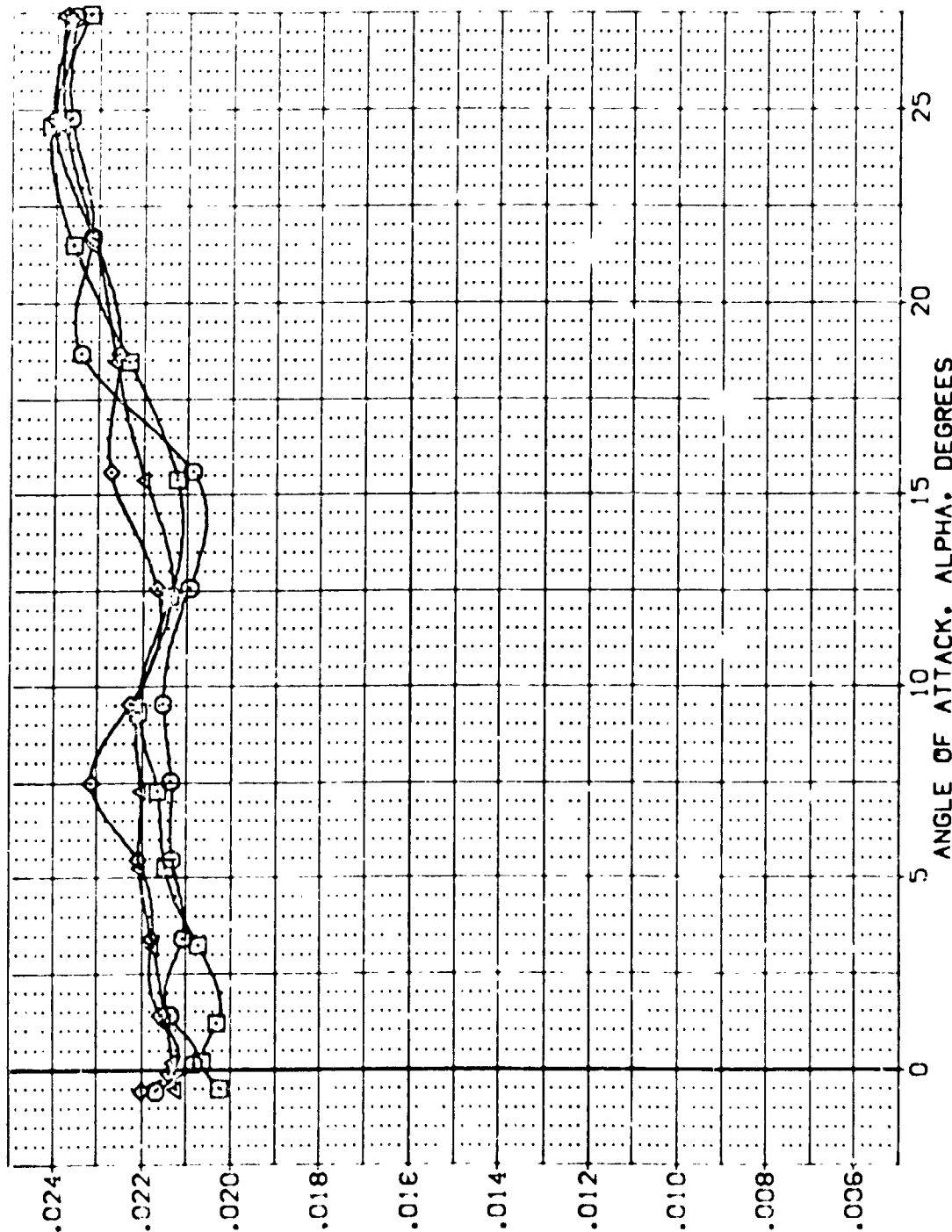


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(A) MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM.	RV/L	SEAL EL	ELEVON	AIRLON	BOF LAP	SPDRM	REFERENCE INFORMATION
[TEL010]	ARC 87-747 BASIC B C M F V	V	RV/L	SEAL EL	.000	.000	16.300	55.000	SREF 2.4210
[TEL050]	ARC 87-747 BASIC B C M F V	V	RV/L	SEAL EL	.000	.000	16.300	55.000	LRFF 14.2440
[TEL080]	ARC 87-747 BASIC B C M F V	V	RV/L	SEAL EL	.000	.000	16.300	55.000	BPFF 18.1004
[TEL049]	ARC 87-747 BASIC B C M F V	V	RV/L	SEAL EL	.000	.000	16.300	55.000	XRPP 30.3010
									XRPP .0000
									XRPP 11.7500
									SCALE .0000

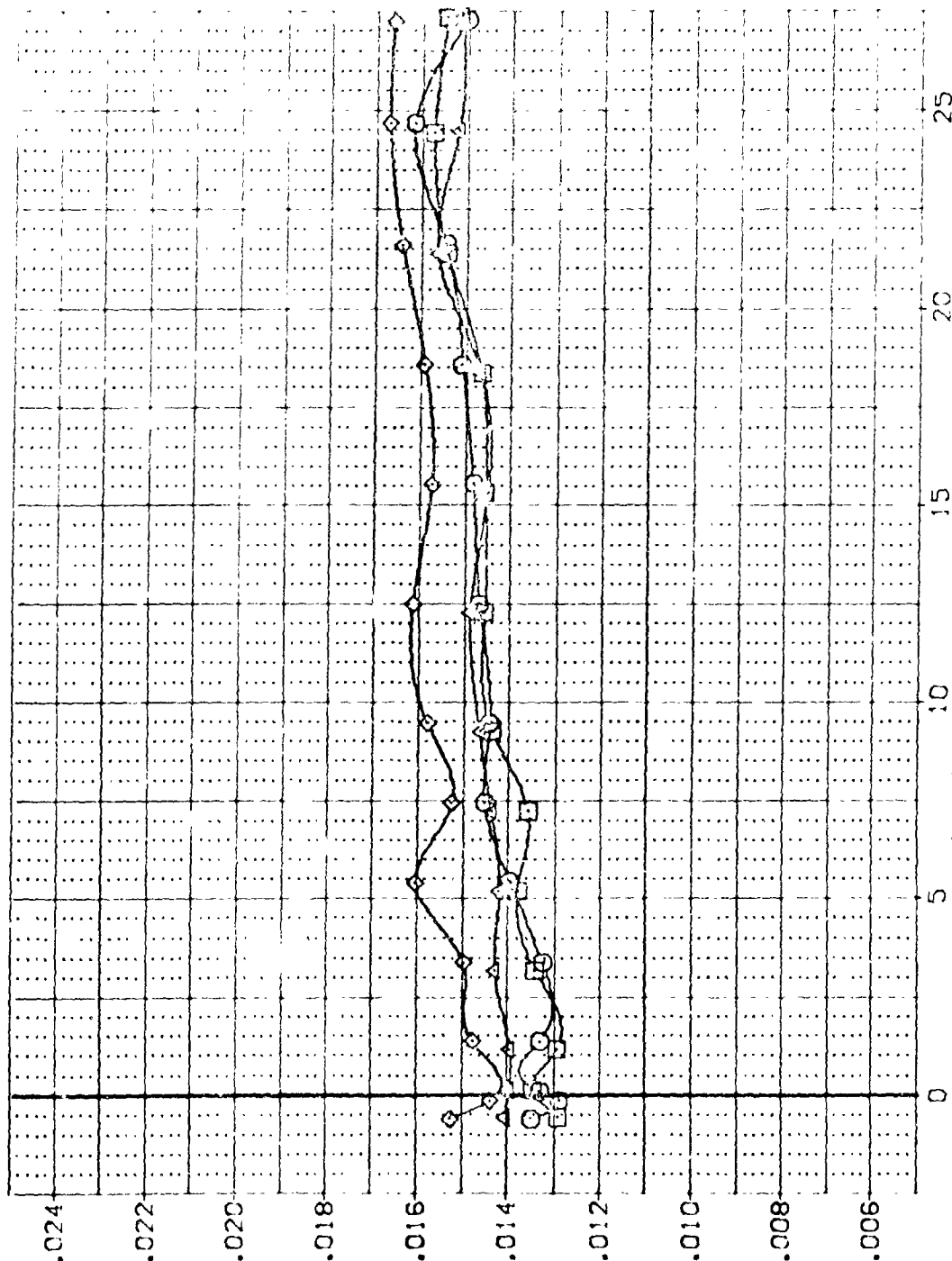


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM.	RV/L	SEAL.EL	ELEVON	AIRFOIL	BDF LAP	SPOBRK	REFERENCE INFORMATION
(TEL010)	ARC 87-747 QAS3C B C M F VI V	NOM.	RV/L	SEAL.EL	.000	.000	16.300	55.000	SREF 2.4210 SQ.F.T.
(TEL050)	ARC 87-747 QAS3C B C M F VI V	NOM.	RV/L	SEAL.EL	.000	.000	16.300	55.000	LREF 14.2440
(TEL008)	ARC 87-747 QAS3C B C M F VI V	NOM.	RV/L	SEAL.EL	.000	.000	16.300	55.000	BREF 28.1004
(TEL049)	ARC 87-747 QAS3C B C M F VI V	NOM.	RV/L	SEAL.EL	.000	.000	16.300	55.000	XREF 32.3010
									YREF 0.000
									ZREF 11.2500
									SCALE .0300

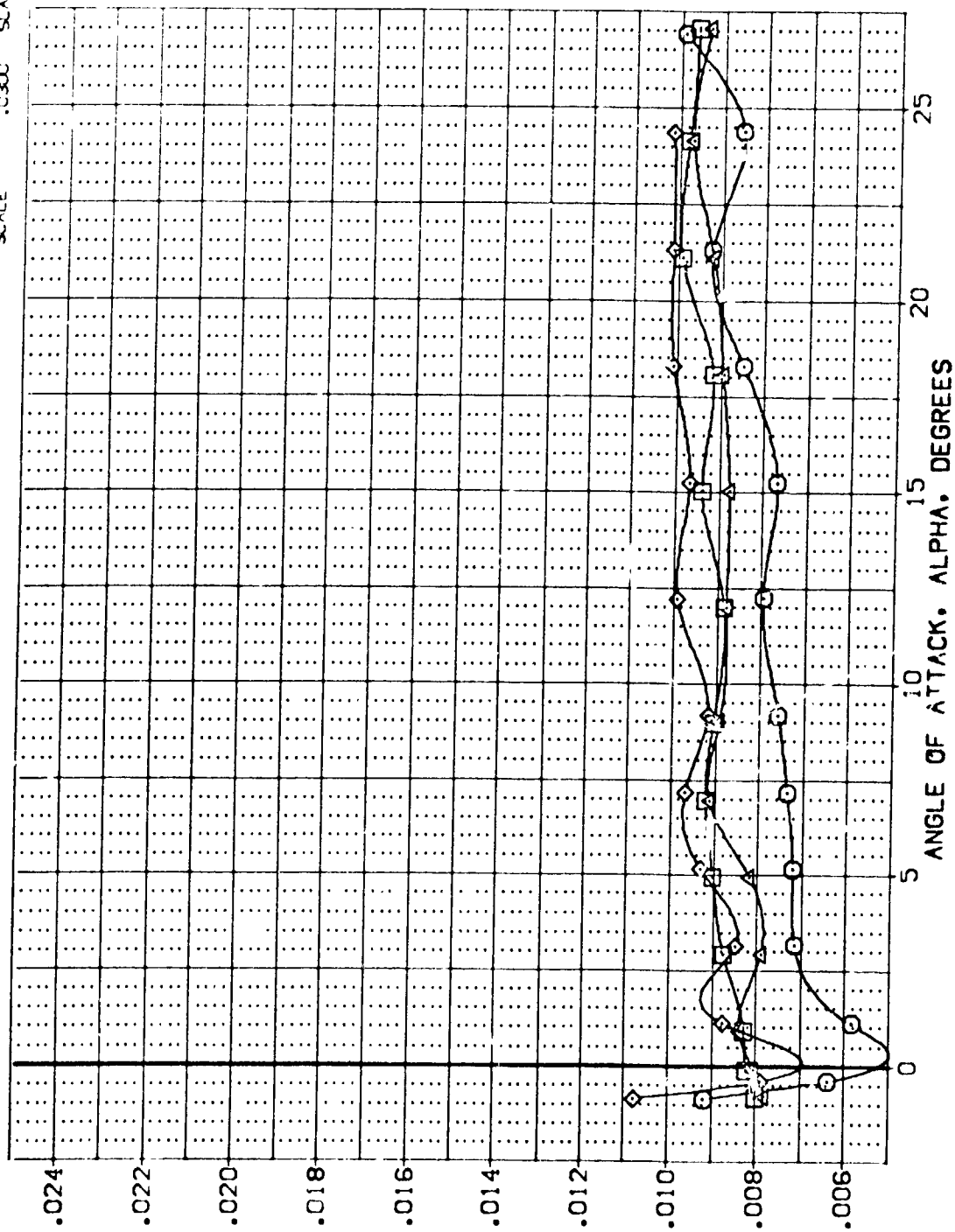


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON	RN/L	SEAL.EL	ELEVON	AIRLON	BOFLAP	SPDBRK	REFERENCE INFORMATION
(TEL010)	ARC 87-747 OAS3C B C M F V	V			.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
(TEL050)	ARC 87-747 OAS3C B C M F V	V			.000	.000	16.300	55.000	LREF 14.2440
(TEL008)	ARC 87-747 OAS3C B C M F V	V			15.000	.000	16.300	55.000	BRFF 28.1000
(TEL049)	ARC 87-747 OAS3C B C M F V	V			15.000	.000	16.300	55.000	YMRP 32.3000
									ZMRP .0000
									SCALE 11.2500 IN.
									SCALE .0300

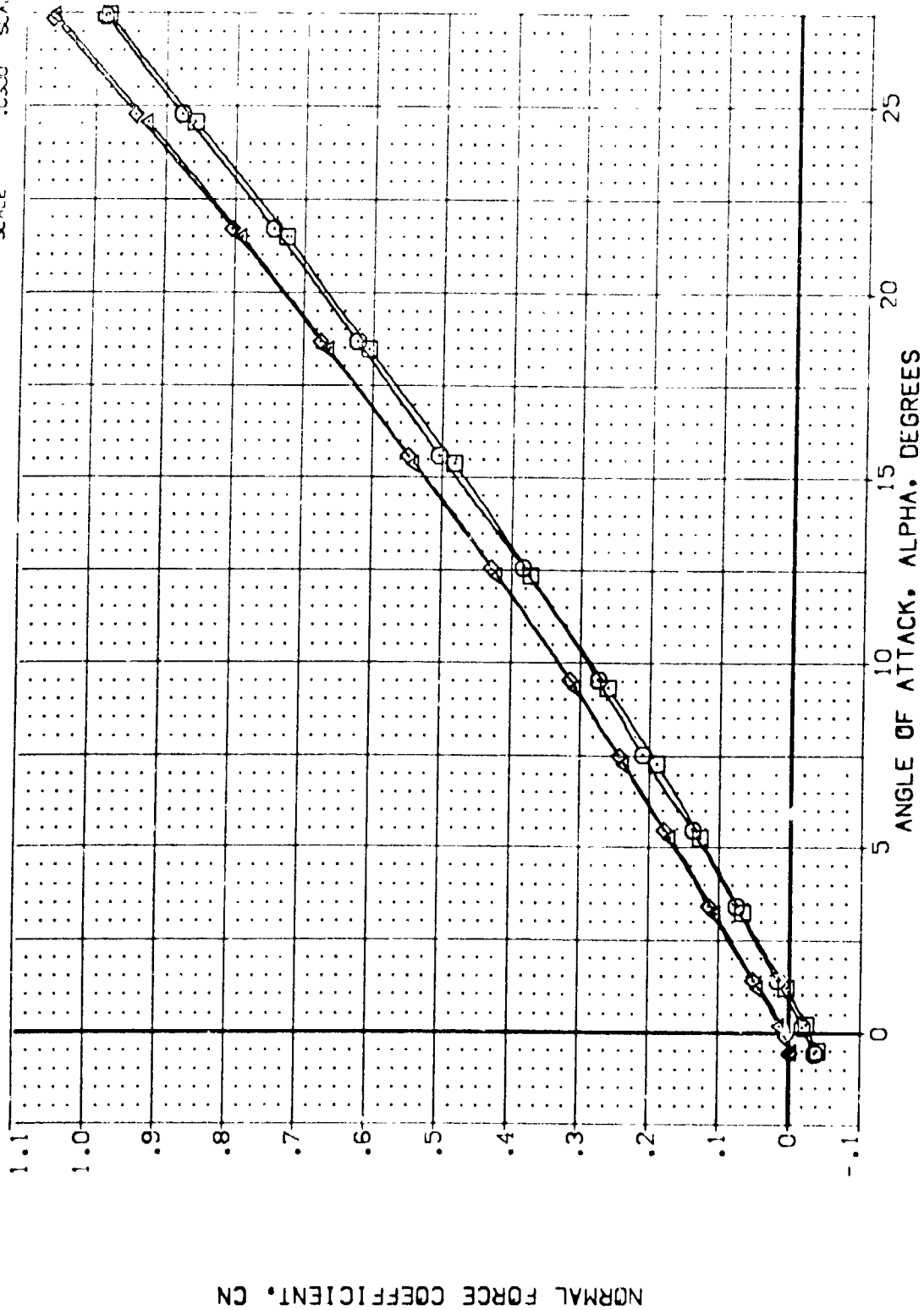


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AIRLON	BDF LAP	SPOBRK	REFERENCE INFORMATION
(TEL010)	ARC 87-747 DAS3C B C M F V1 V	.000	.000	16.300	55.000	SREF 2.4210 50.17.
(TEL050)	ARC 87-747 DAS3C B C M F V1 V	.000	.000	16.300	55.000	LREF 14.2440
(TEL008)	ARC 87-747 DAS3C B C M F V1 V	.000	.000	16.300	55.000	BREF 28.1004
(TEL049)	ARC 87-747 DAS3C B C M F V1 V	.000	.000	16.300	55.000	XPRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

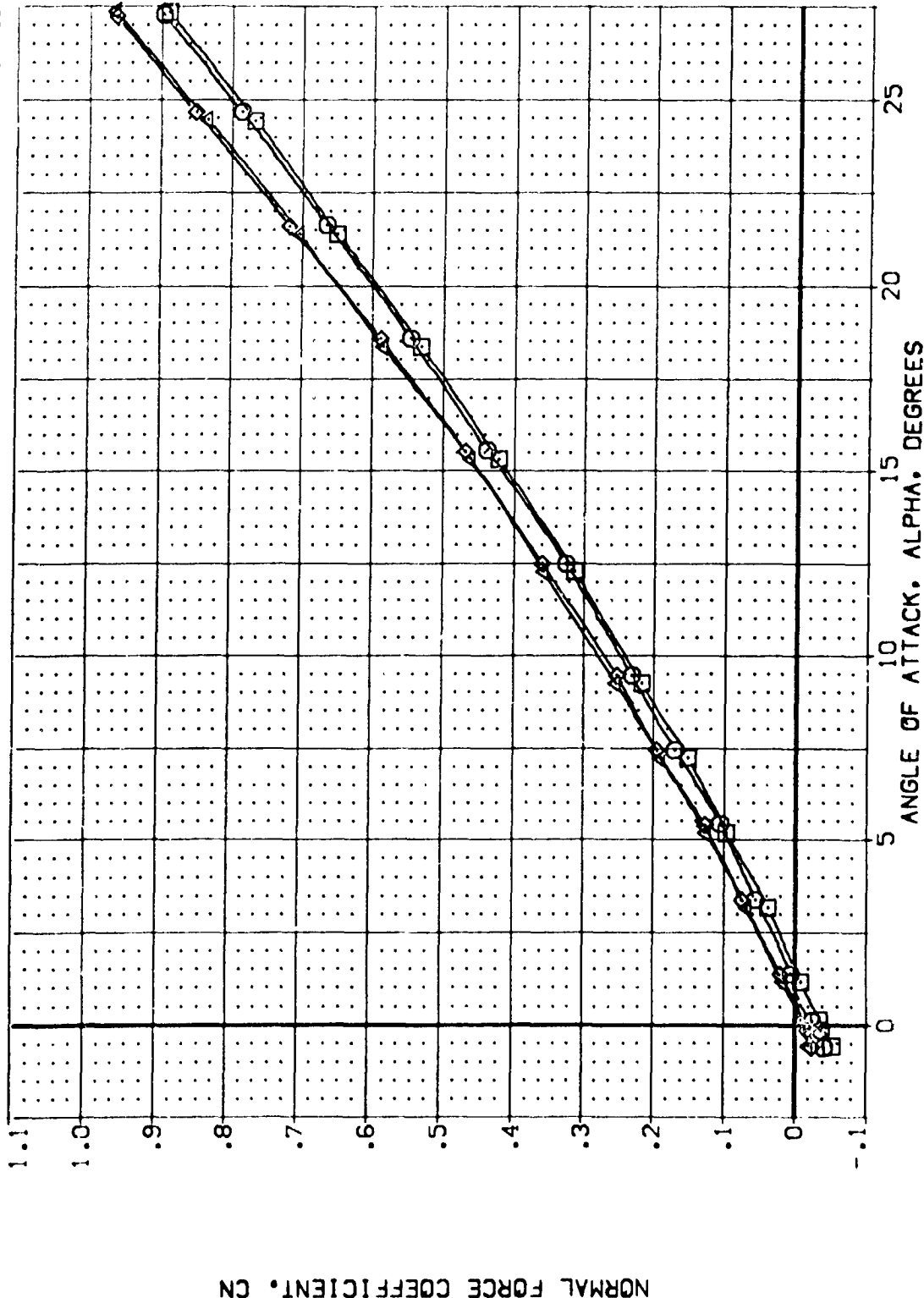


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON	RN/L	SEAL EL	ELEVON	AIRLON	BDF LAP	SPDBRK	REFERENCE INFORMATION
(TEL010)	ARC 87-747 QAS3C B C M F VI V	NON	RN/L	SEAL EL	.000	.000	16.300	55.000	SREF 2.421C
(TEL050)	ARC 87-747 QAS3C B C M F VI V	NON	RN/L	SEAL EL	.000	.000	16.300	55.000	LREF 14.244C
(TEL008)	ARC 87-747 QAS3C B C M F VI V	NON	RN/L	SEAL EL	.000	.000	16.300	55.000	BREF 28.1004
(TEL049)	ARC 87-747 QAS3C B C M F VI V	NON	RN/L	SEAL EL	.000	.000	16.300	55.000	XMRD 32.301C
									YMRD .0000
									ZMRD 11.7000
									SCALE .0300
									SCALE

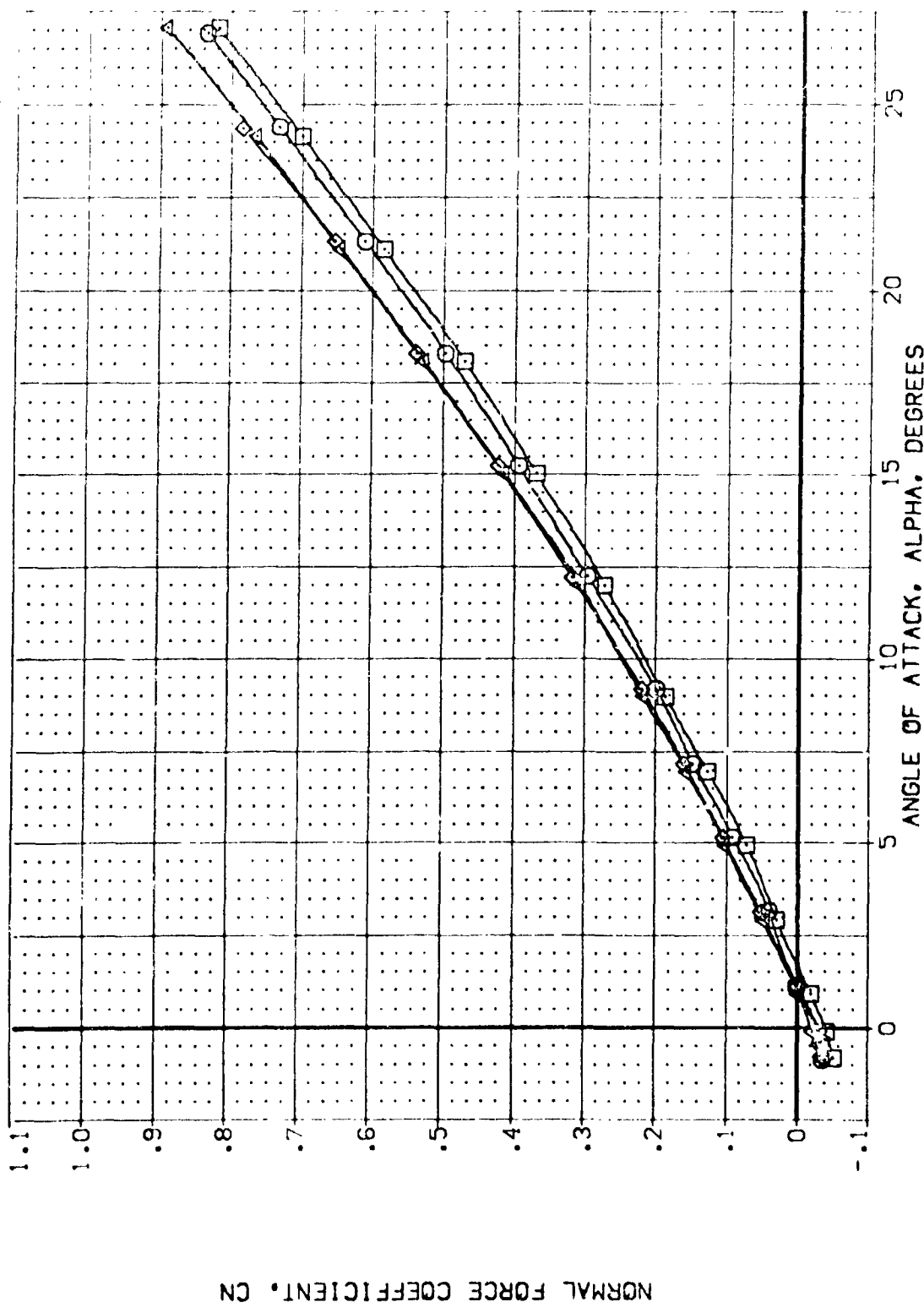


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM.	RM/L	SEAL.EL	ELEVON	AIRLON	SD/LAP	SPDBRK	REFERENCE INFORMATION
(TELO:0)	ARC 87-747 D453C B C M F VI V	NOM.	RM/L	SEAL.EL	.000	.000	16.300	55.000	SREF 2.4210
(TELO:50)	ARC 87-747 D453C B C M F VI V	NOM.	RM/L	SEAL.EL	.000	.000	16.300	55.000	UREF 14.7440
(TELO:50)	ARC 87-747 D453C B C M F VI V	NOM.	RM/L	SEAL.EL	.000	.000	16.300	55.000	BREF 28.1000
(TELO:50)	ARC 87-747 D453C B C M F VI V	NOM.	RM/L	SEAL.EL	.000	.000	16.300	55.000	YREF 32.3000
(TELO:50)	ARC 87-747 D453C B C M F VI V	NOM.	RM/L	SEAL.EL	.000	.000	16.300	55.000	ZREF 11.7500
(TELO:50)	ARC 87-747 D453C B C M F VI V	NOM.	RM/L	SEAL.EL	.000	.000	16.300	55.000	SCALE 1.0000

PITCHING MOMENT COEFFICIENT (FWD C.G.), CLMFW

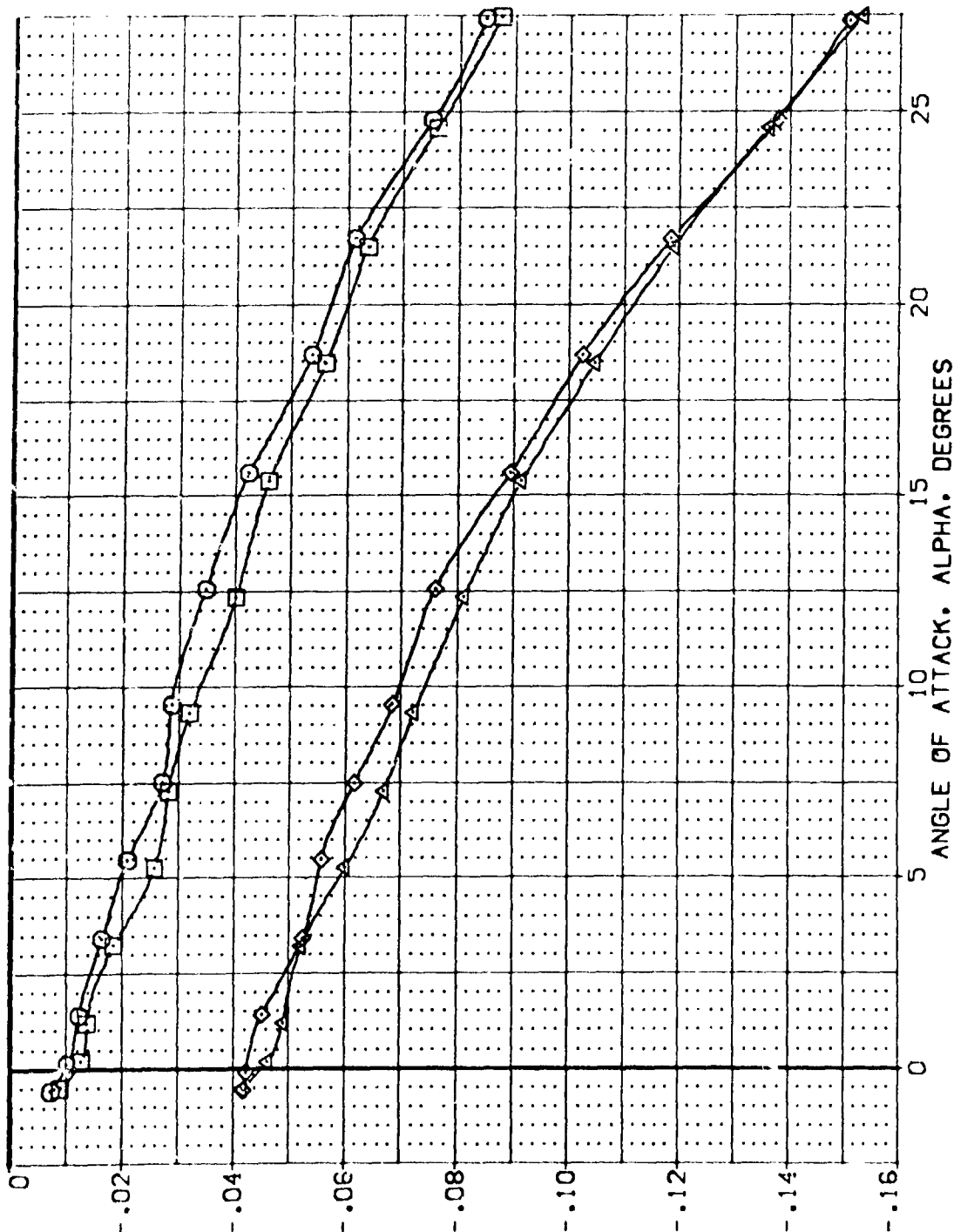


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ATLIRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[TELO03]	ARC 87-747 OAS3C B C M F V	.000	.000	16.300	55.000	SREF 2.4210
[TELO50]	ARC 87-747 OAS3C B C M F V	.000	.000	16.300	55.000	LREF 14.2460
[TELO08]	ARC 87-747 OAS3C B C M F V	.000	.000	16.300	55.000	BREF 78.1001
[TELO49]	ARC 87-747 OAS3C B C M F V	.000	.000	16.300	55.000	XREF 32.3013
						YMRD .0000
						ZMRD .0000
						SCALE .0300

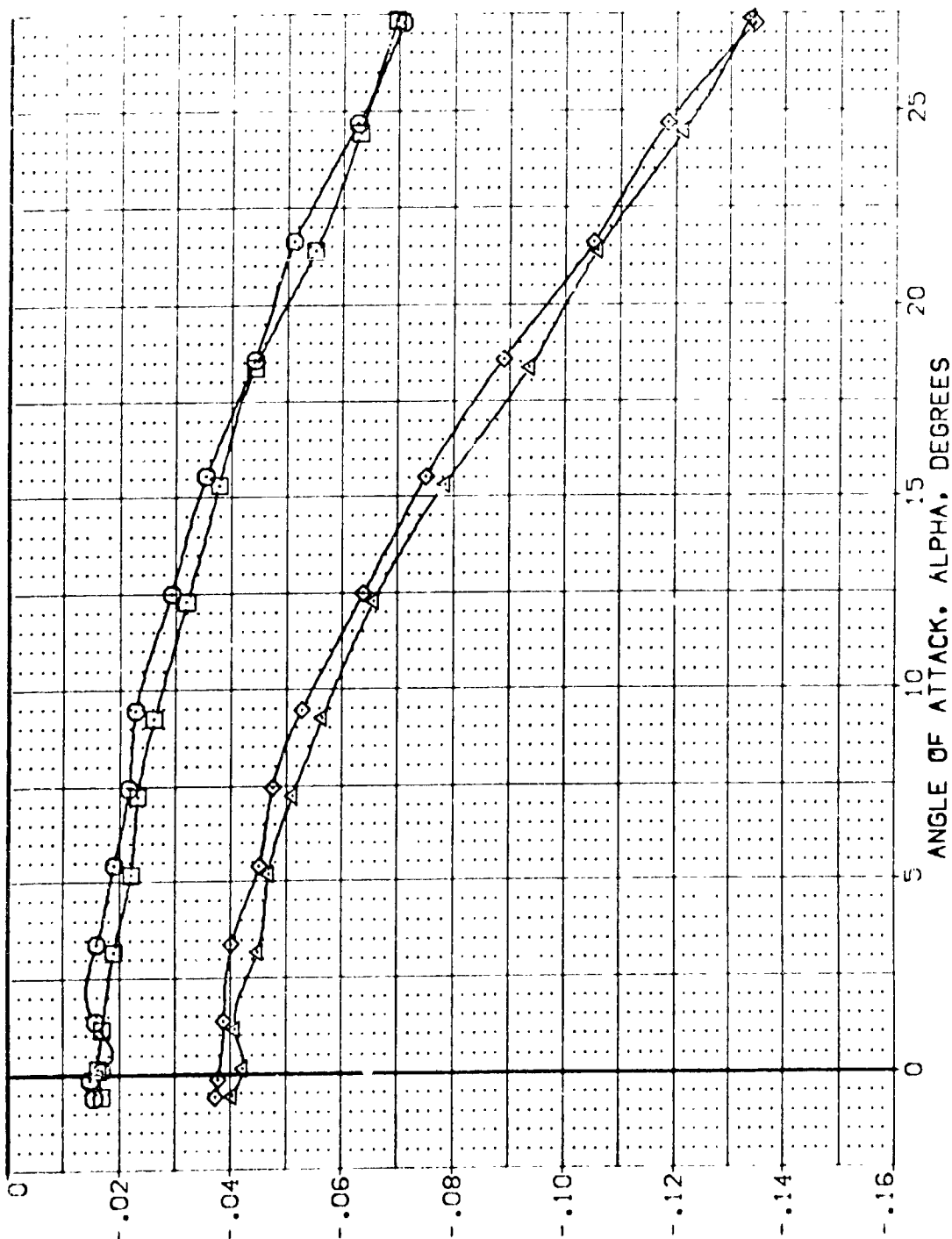


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM	RV/L	SEAL.EL	ELEVON	AILERON	BOLAP	SPOBRK	REFERENCE INFORMATION
(TEL010)	ARC 87-747 DAS3C B C M F VI	V			.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
(TEL050)	ARC 87-747 DAS3C B C M F VI	V			.000	.000	16.300	55.000	LREF 14.2440
(TEL008)	ARC 87-747 DAS3C B C M F VI	V			.000	.000	16.300	55.000	BREF 28.1004
(TEL019)	ARC 87-747 DAS3C B C M F VI	V			.000	.000	16.300	55.000	VMRP 32.3010
									ZMRP .0000
									SCALE 11.2500
									.0300

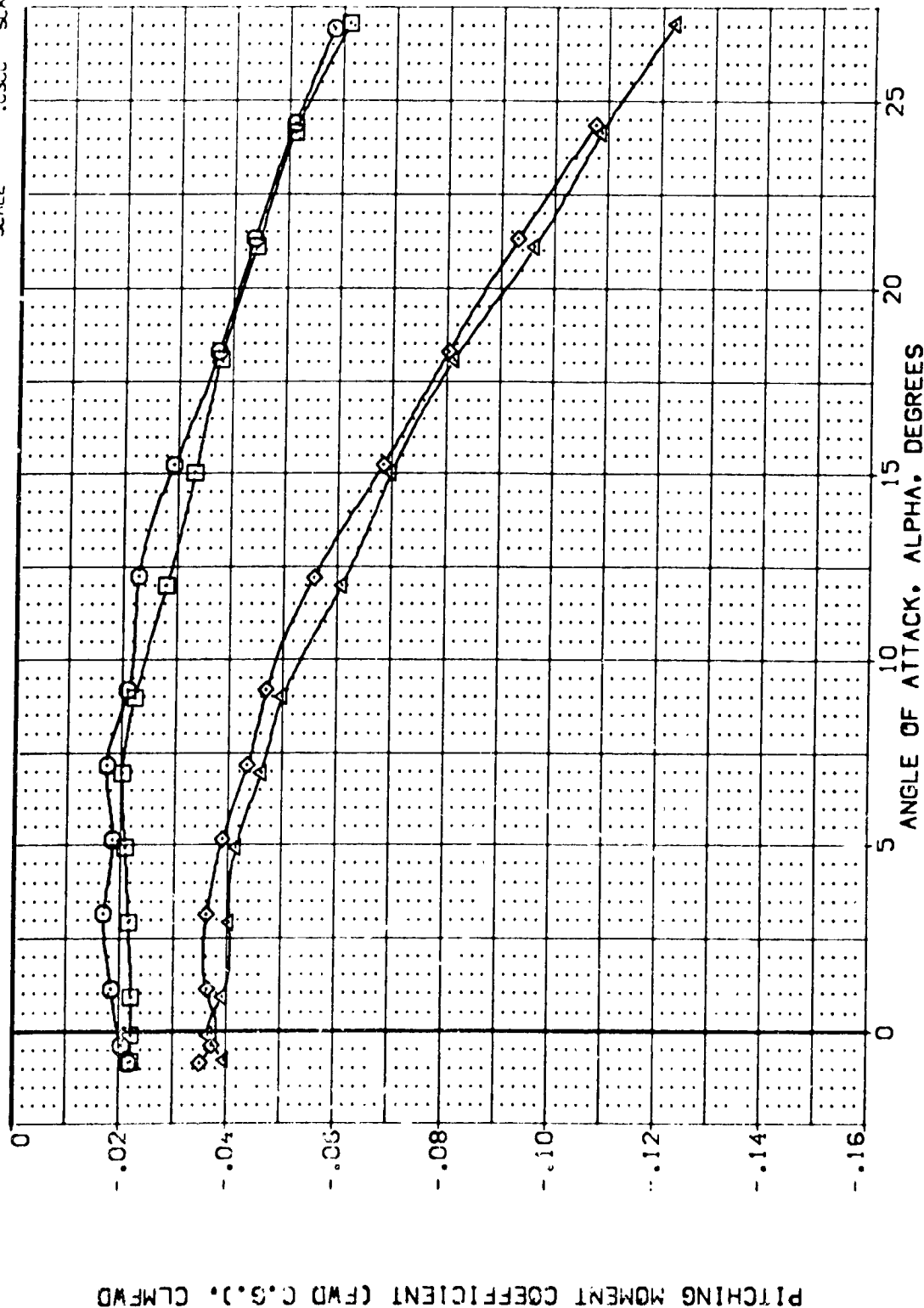


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON-REF	RN/L	SEAL/EL	ELEVON	AIRL/RON	BOF/LAP	SPOBRK	REFERENCE INFORMATION
TEL010	ARC 87-747 QAS3C B C M F VI V	NON-REF	RN/L	SEAL/EL	.000	.000	16.300	55.000	SREF 2.4210
TEL000	ARC 87-747 QAS3C B C M F VI V	NON-REF	RN/L	SEAL/EL	.000	.000	16.300	55.000	LRREF 14.2440
TEL008	ARC 87-747 QAS3C B C M F VI V	NON-REF	RN/L	SEAL/EL	15.000	.000	16.300	55.000	BRREF 28.1000
TEL049	ARC 87-747 QAS3C B C M F VI V	NON-REF	RN/L	SEAL/EL	15.000	.000	16.300	55.000	XRREF 32.3010
									YMRP .0000
									ZMRP 11.2500
									SCALE .0300

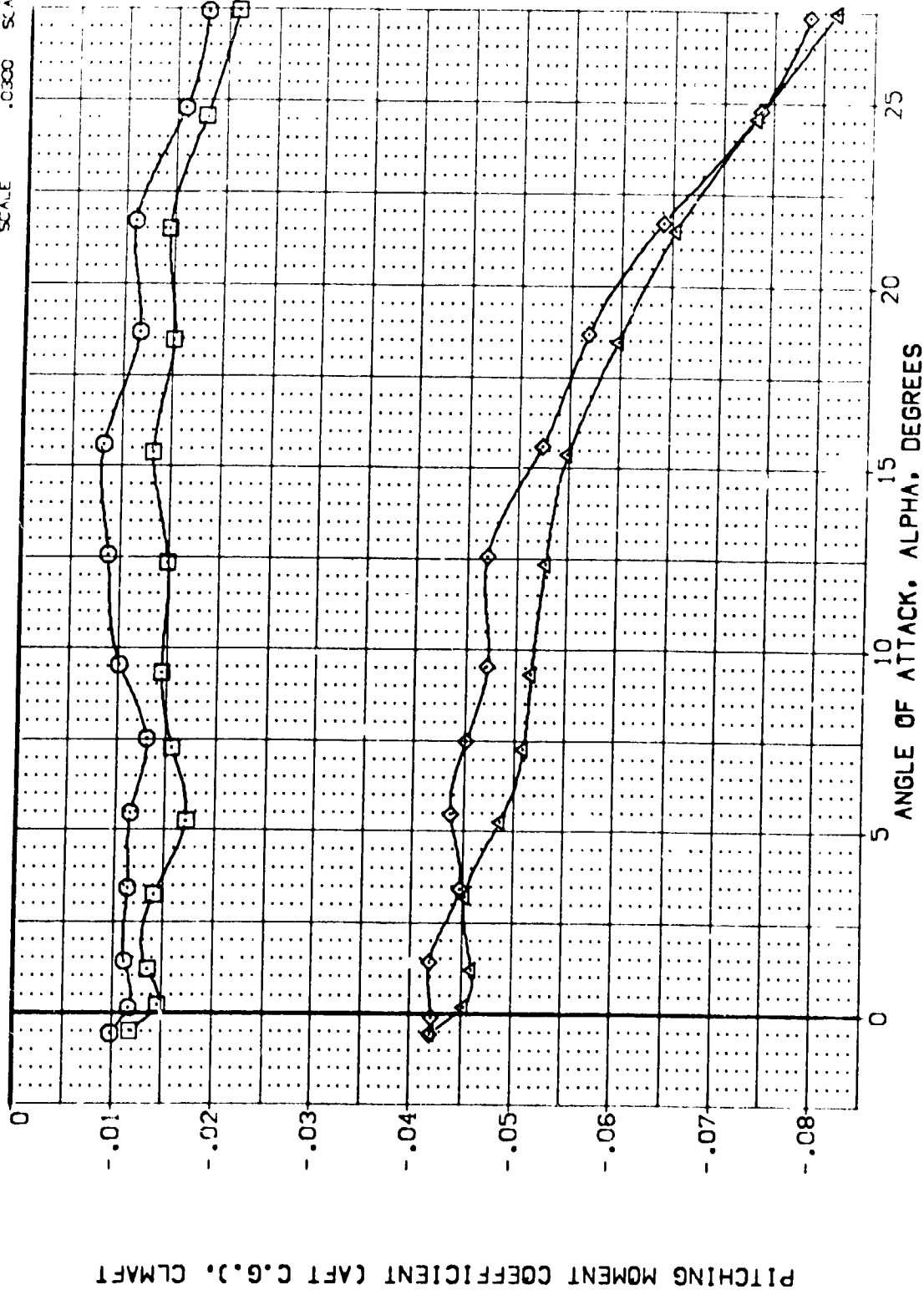


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM.	RV/L	SEAL.EL	ELEVON	AIRLON	BOF LAP	SPOBRK	REFERENCE INFORMATION
ARC 87-747	DA53C B C M F V1	V	RV/L	SEAL.EL	.000	.000	15.300	55.000	SPEE 2.4210 SQ.FT.
TEL0101	ARC 87-747	DA53C B C M F V1	V	RV/L	.000	.000	15.300	55.000	URPE 14.2440
TEL050	ARC 87-747	DA53C B C M F V1	V	RV/L	.000	.000	15.300	55.000	SPRE 28.1004
TEL008	ARC 87-747	DA53C B C M F V1	V	RV/L	.000	.000	15.300	55.000	VMRO 32.3010
TEL049	ARC 87-747	DA53C B C M F V1	V	RV/L	.000	.000	15.300	55.000	VMRO 32.3010
									SCALE 11.2500
									SCALE

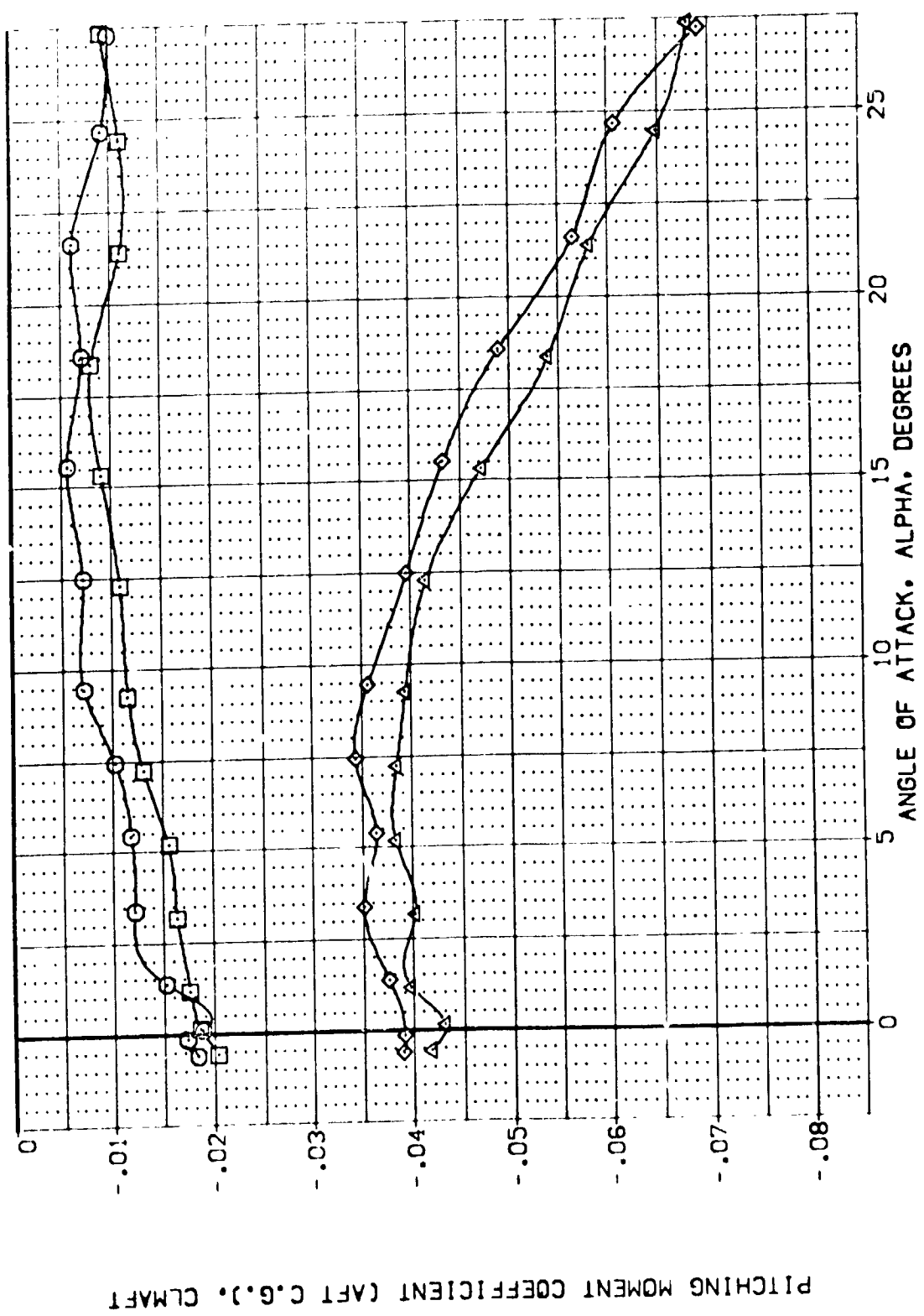
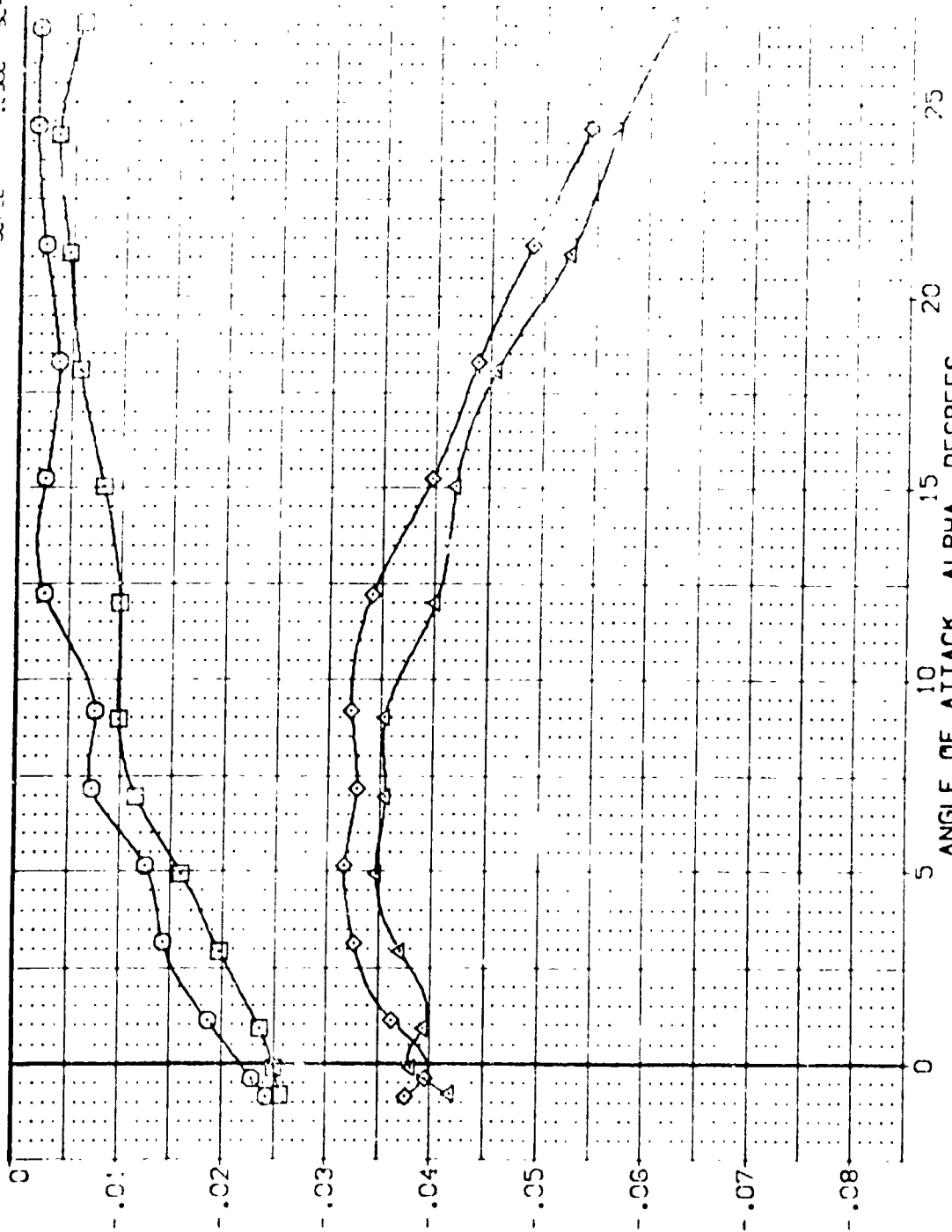


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOI.	RV/L	SEAL.EL	ELEVON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
[*ELO10]	ARC 87-747 CAS3C B C M F VI V	NOI.	RV/L	SEAL.EL	.000	.000	16.300	55.000	SPREF 2.4210 SQ.FT.
[*ELC50]	ARC 87-747 CAS3C B C M F VI V	NOI.	RV/L	SEAL.EL	.000	.000	16.300	55.000	SPREF 14.2440
[*ELC08]	ARC 87-747 CAS3C B C M F VI V	NOI.	RV/L	SEAL.EL	.000	.000	16.300	55.000	SPREF 28.1004
[*ELO19]	ARC 87-747 CAS3C B C M F VI V	NOI.	RV/L	SEAL.EL	.000	.000	16.300	55.000	SPREF 32.3010
									YMRP 00.00
									ZMRP 20.00
									SCALE 11.2500
									SCALE 1.3000



PITCHING MOMENT COEFFICIENT (Cm) C.G., CLMAFI

FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	SEAL.EL	ELEVON	AIRLON	BDF LAD	SPOBRK	REFERENCE INFORMATION
(E-010)	ARC 87-747 CAS3C B C H F V	✓			.000	.000	16.300	55.000	SREF 2.4210 SQ.FT.
(E-053)	ARC 87-747 CAS3C B C H F V	✓			.000	.000	16.300	55.000	REF 14.244
(E-008)	ARC 87-747 CAS3C B C H F V	✓			15.000	.000	16.300	55.000	BDF 28.100
(E-049)	ARC 87-747 CAS3C B C H F V	✓			15.000	.000	16.300	55.000	IN-38 32.300
							7400	1.000	SCALE
								1.000	SCALE

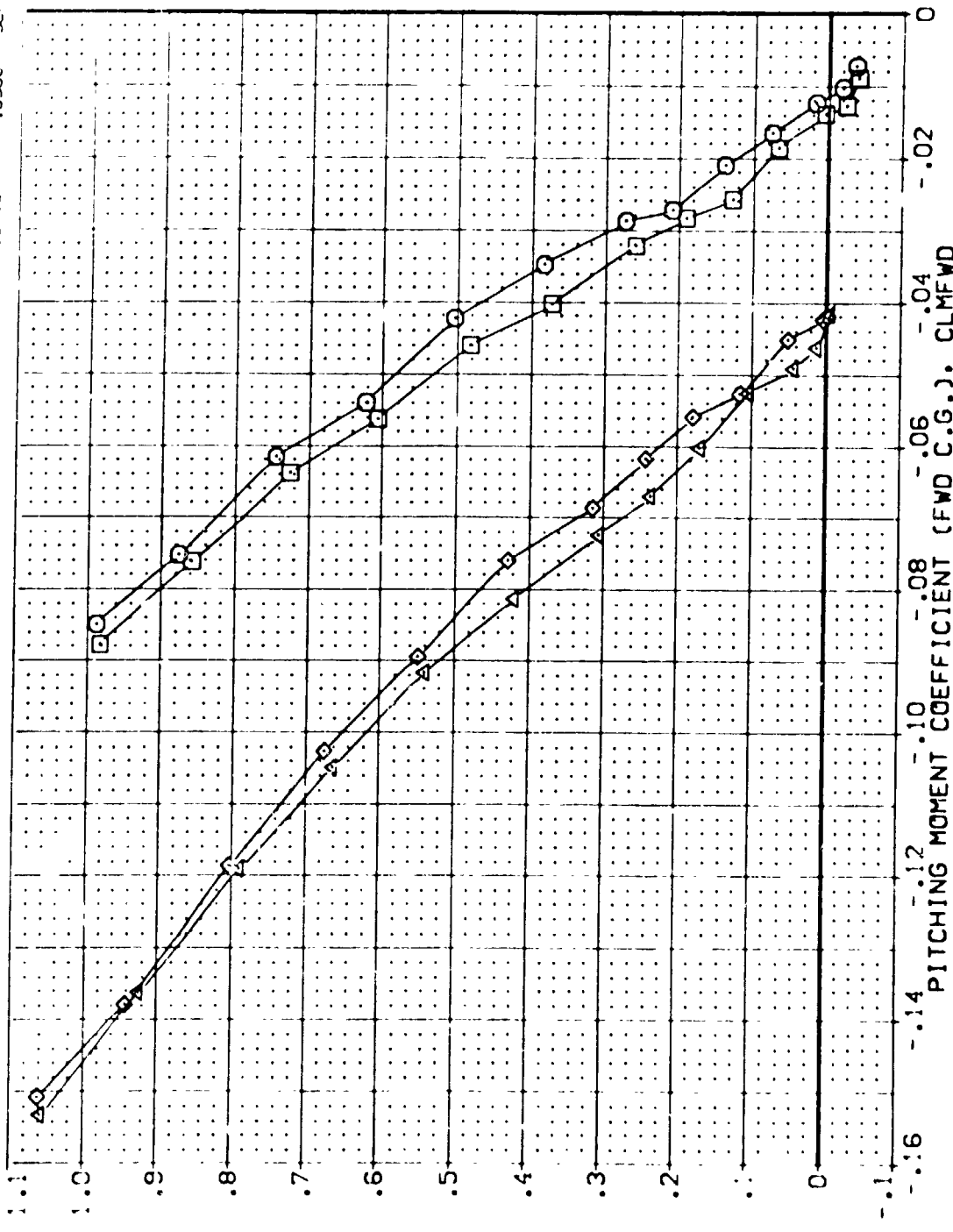


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(A) MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOT: RV/L	SEAL: EL	ELEVON	AILERON	BOFLAP	SPOBRK	REFERENCE INFORMATION
TEL013	ARC 87-747 BASIC B C H F V	V		.000	.000	16.300	55.000	SREF 2.4210
TEL050	ARC 87-747 BASIC B C H F V	V		.000	.000	16.300	55.000	LRLE 14.2440
TEL008	ARC 87-747 BASIC B C H F V	V		.000	.000	16.300	55.000	BRLE 16.1200
TEL049	ARC 87-747 BASIC B C H F V	V		.000	.000	16.300	55.000	XREF 16.1200
								YREF 16.1200
								ZREF 16.1200
								SCALE 16.1200

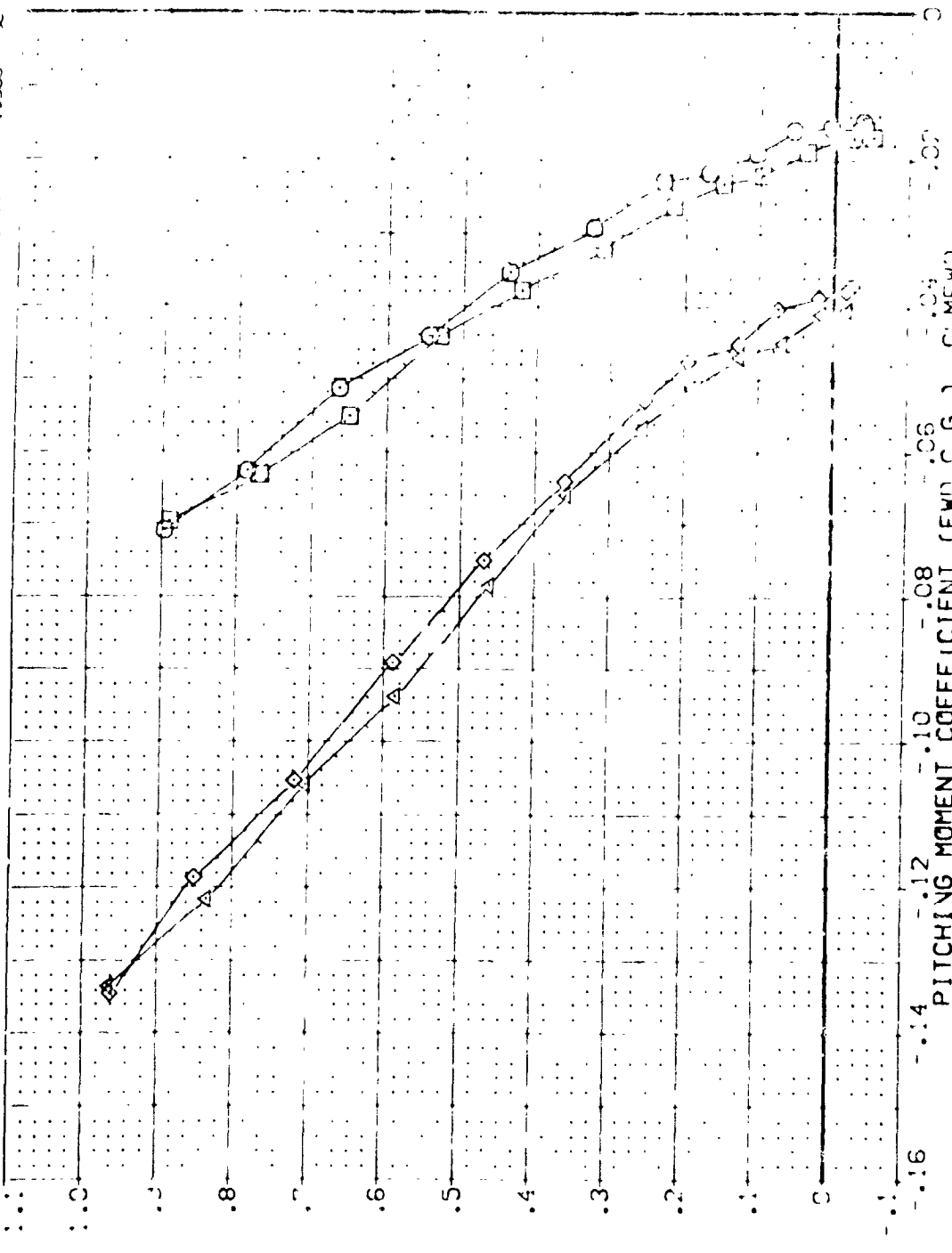


FIG. 10 SEALED ELEVON SPLIT EFFECTS  
(B) MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF. INFL. INFORMATION	SPDRK	BOFLAP	ELEVON	AILRON	SCALE
TEC010	ARC 87-747 CAS3C B C M F VI V	SPR 2.40 C	55.000	16.300	.000	.000	15.000
TEC020	ARC 87-747 CAS3C B C M F VI V	SPR 2.40 C	55.000	16.300	.000	.000	15.000
TEC030	ARC 87-747 CAS3C B C M F VI V	SPR 2.40 C	55.000	16.300	.000	.000	15.000
TEC040	ARC 87-747 CAS3C B C M F VI V	SPR 2.40 C	55.000	16.300	.000	.000	15.000

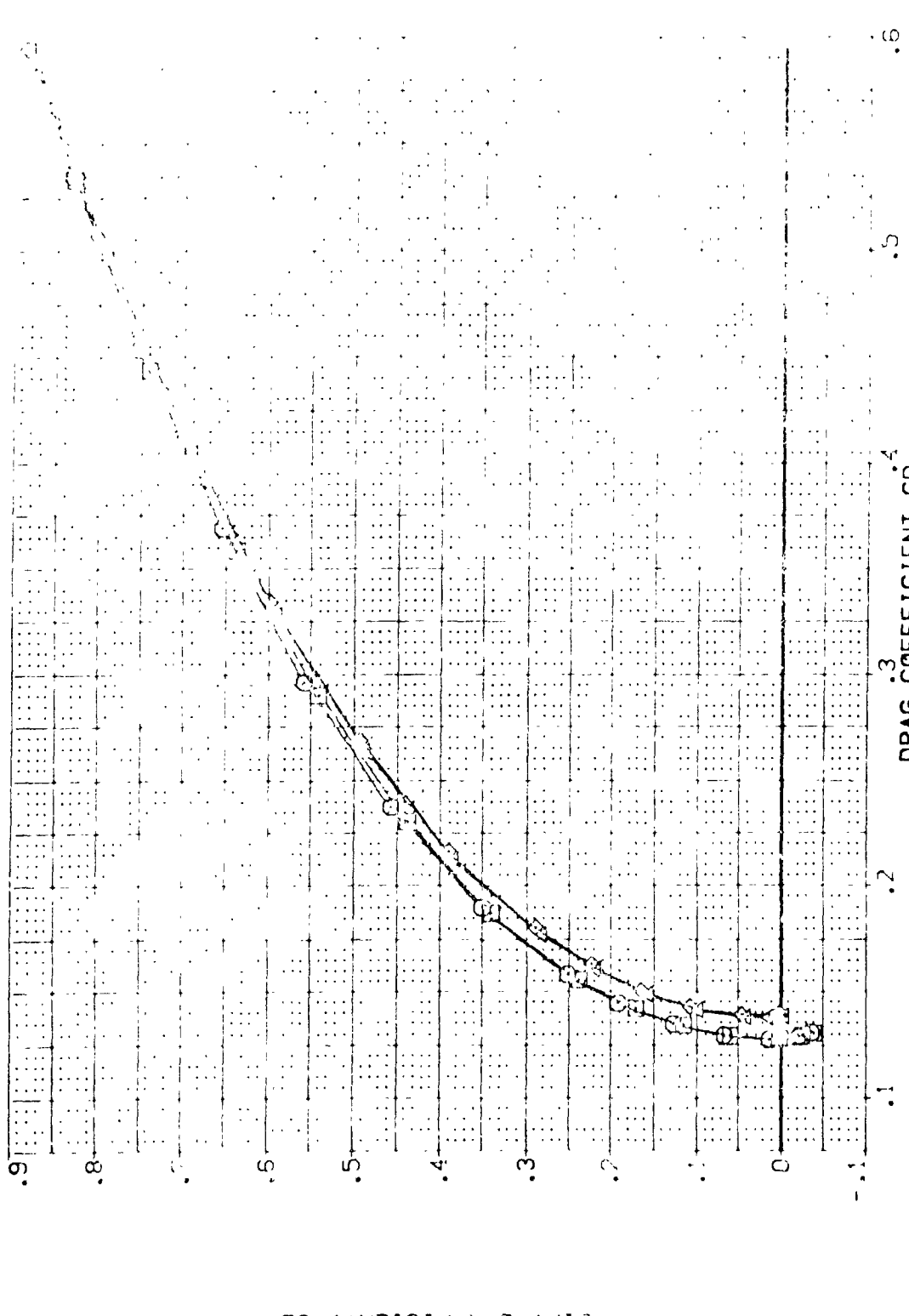


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(A)MAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM.	RV/L	SEAL .EL	ELEVON	AILRON	BDF LAP	SPOBRK	REFERENCE INFORMATION
ARC 87-747 CAS3C B C M F VI	Y	NOM.	RV/L	SEAL .EL	.000	.000	16.300	55.000	SREF 2.4210
ARC 87-747 CAS3C B C M F VI	Y	NOM.	RV/L	SEAL .EL	.000	.000	16.300	55.000	LRPF 14.2440
ARC 87-747 CAS3C B C M F VI	Y	NOM.	RV/L	SEAL .EL	.000	.000	16.300	55.000	BRPF 28.1004
ARC 87-747 CAS3C B C M F VI	Y	NOM.	RV/L	SEAL .EL	.000	.000	16.300	55.000	XRPF 32.3040
									YMRP 11.0000
									ZMRP 11.7000
									SCALE 1.0000

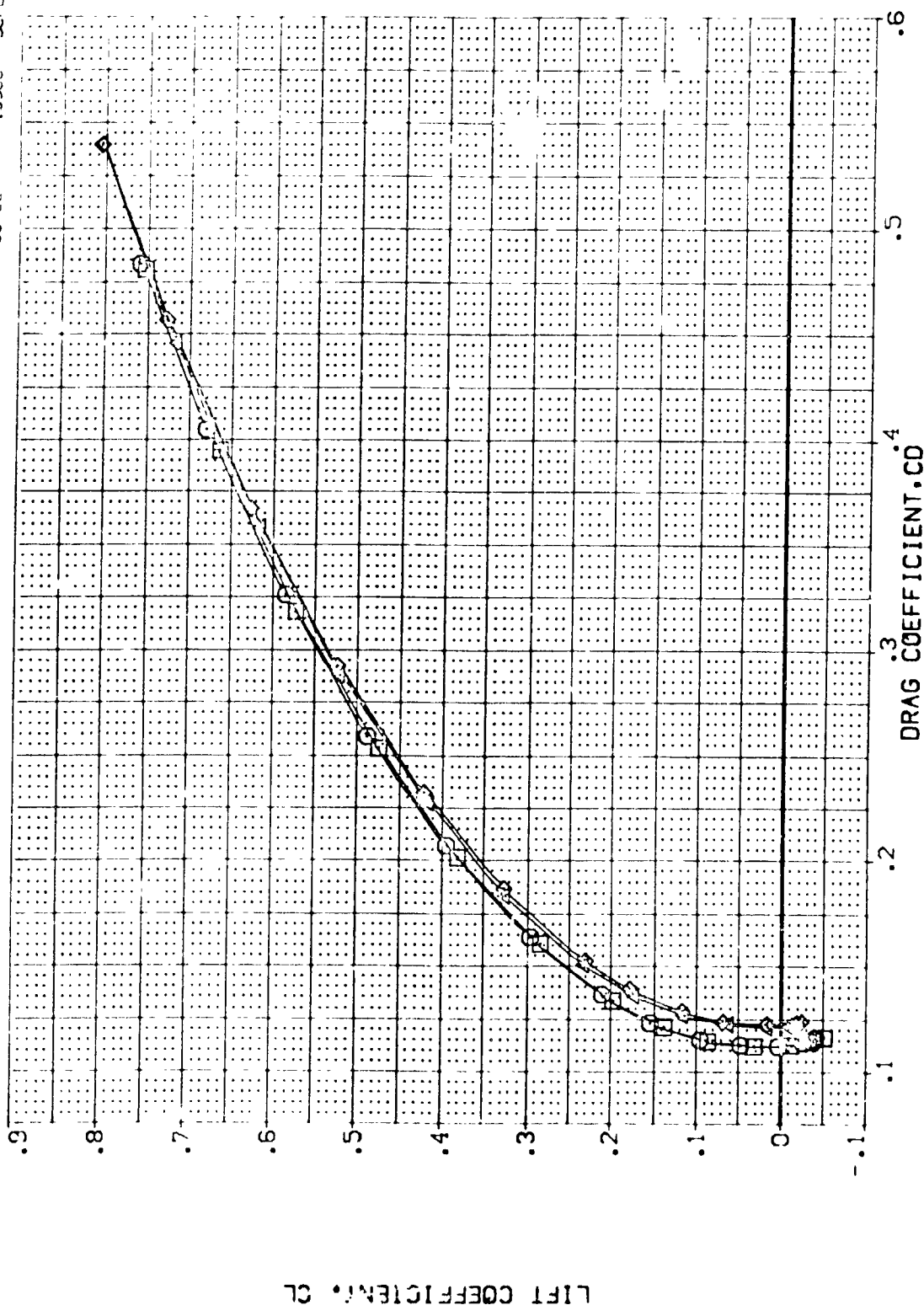


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B) MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RM/L	SEAL.EL	ELEVON	AIRLON	BOFLAP	SPDRBK	REFERENCE INFORMATION
TEL010	ARC 87-747 OAS3C B C M F V	V	RM/L	SEAL.EL	.000	.000	16.300	55.000	SPREF 2.4210 SQ.FT.
TEL050	ARC 87-747 OAS3C B C M F V	V	RM/L	SEAL.EL	.000	.000	16.300	55.000	LPREF 14.2410
TEL008	ARC 87-747 OAS3C B C M F V	V	RM/L	SEAL.EL	.000	.000	16.300	55.000	BPREF 78.1004
TEL049	ARC 87-747 OAS3C B C M F V	V	RM/L	SEAL.EL	.000	.000	16.300	55.000	YREF 37.3710
									ZREF 11.7400
									SCALE 11.7400

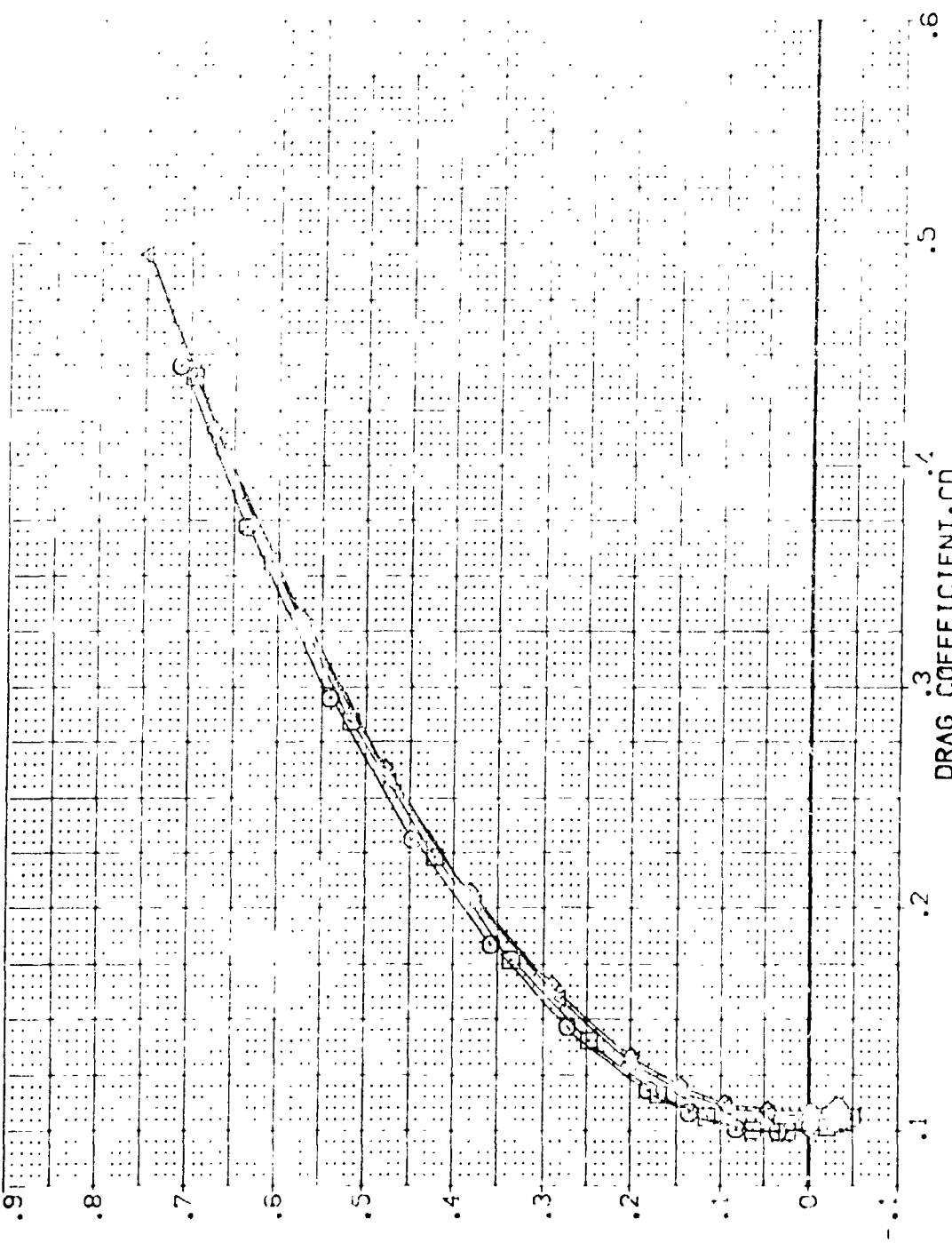
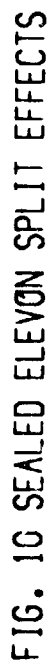


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50

REFERENCE INFORMATION	
SREF	2.4210 SQ.FT.
LREF	14.2443
BREF	28.1004
XPRP	37.3073
YPRP	1.0000
ZPRP	11.7600
SCALE	1.0000 SCALE



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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM.	RV/L	SEAL, EL	ELEVON	AIRLON	BOF LAP	SPDRBK	REFERENCE INFORMATION
ARC 87-747	QAS3C B C M F V1 V	NOM.	RV/L	SEAL, EL	.000	.000	16.300	55.000	SPREF 2.4210 SC.F.
ARC 87-747	QAS3C B C M F V1 V	NOM.	RV/L	SEAL, EL	.000	.000	16.300	55.000	BPREF 14.2440
ARC 87-747	QAS3C B C M F V1 V	NOM.	RV/L	SEAL, EL	.000	.000	16.300	55.000	BPREF 28.1204
ARC 87-747	QAS3C B C M F V1 V	NOM.	RV/L	SEAL, EL	.000	.000	16.300	55.000	BPREF 32.3010
									YREF .0000
									ZREF 11.7500
									SCALE 10300

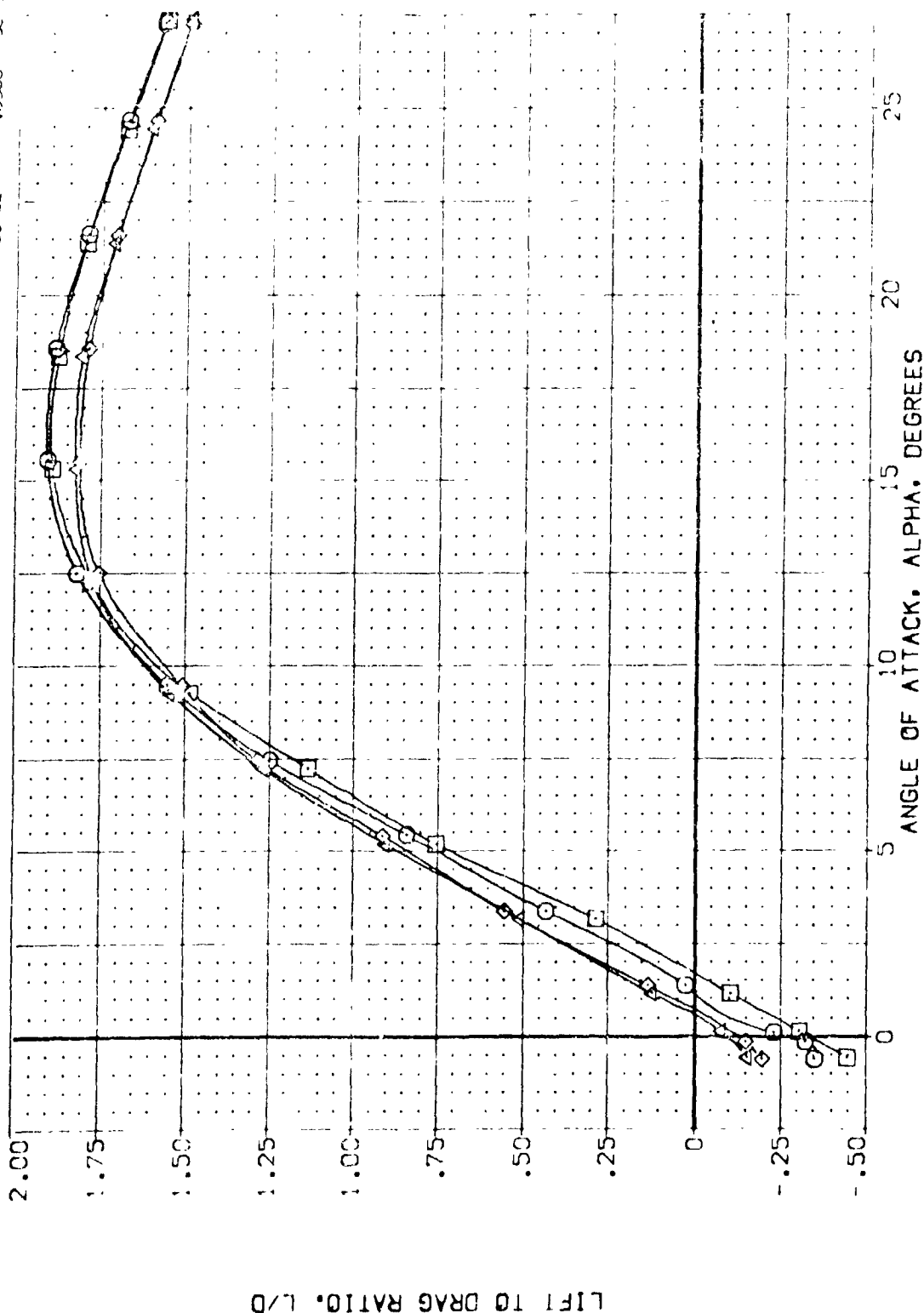


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [TELO10] [C] ARC 87-747 CAS3C B C M F V  
 [TELO10] [C] ARC 87-747 CAS3C B C M F V  
 [TELO10] [C] ARC 87-747 CAS3C B C M F V  
 [TELO10] [C] ARC 87-747 CAS3C B C M F V

NON RN/L SEAL.EL  
 NON RN/L SEAL.EL  
 NON RN/L SEAL.EL

ELEVON .000  
 .000  
 .000  
 15.000  
 15.000

ATLIRON .000  
 .000  
 .000  
 .000  
 .000

BDF LAP 16.300  
 16.300  
 16.300  
 16.300  
 16.300

SPOBBRK 55.000  
 55.000  
 55.000  
 55.000  
 55.000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.2440  
 BREF 78.1000  
 XMRP 37.3010  
 YMRP .0000  
 ZMRP .0000  
 SCALE 11.5300 SCALE

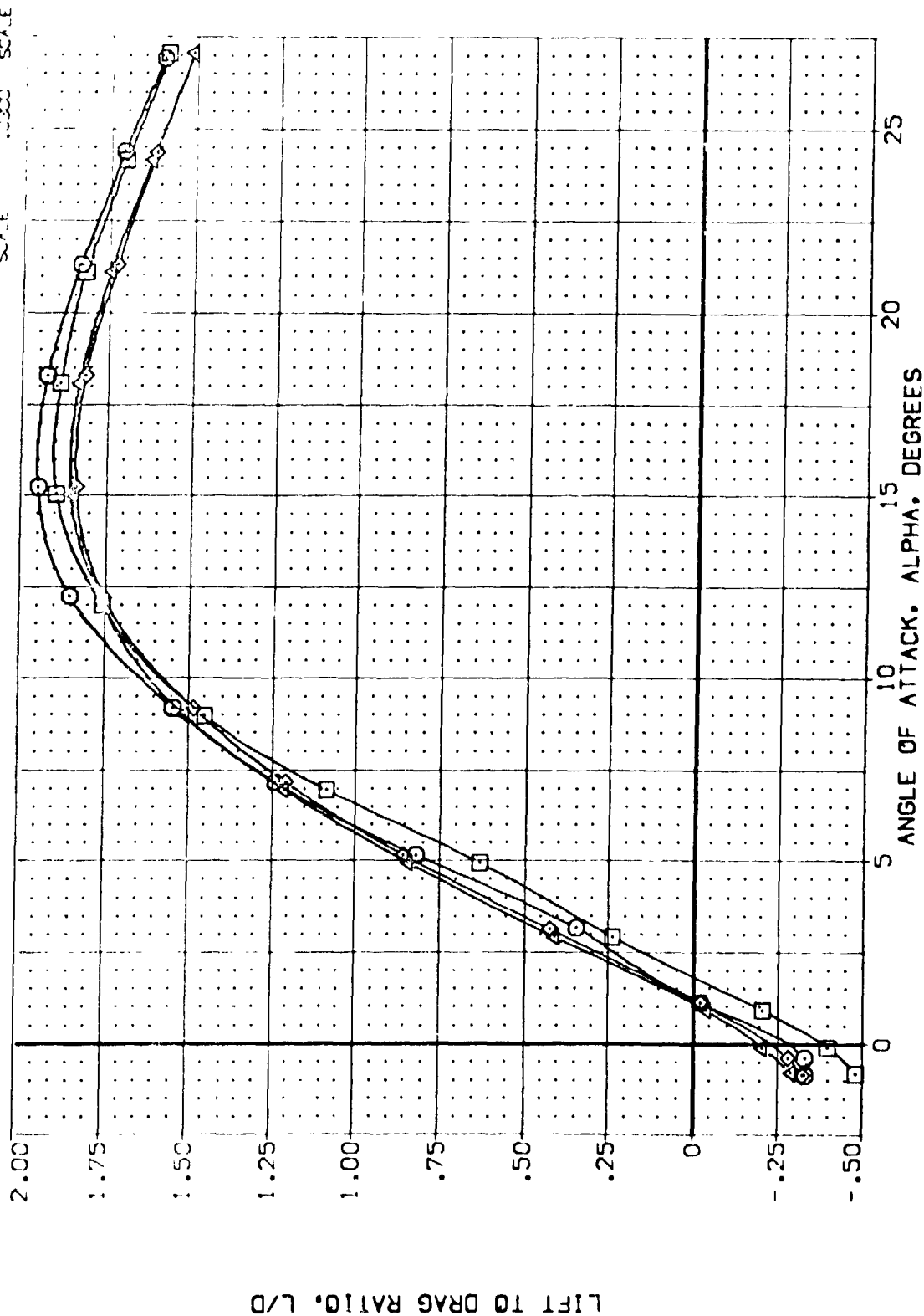


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50



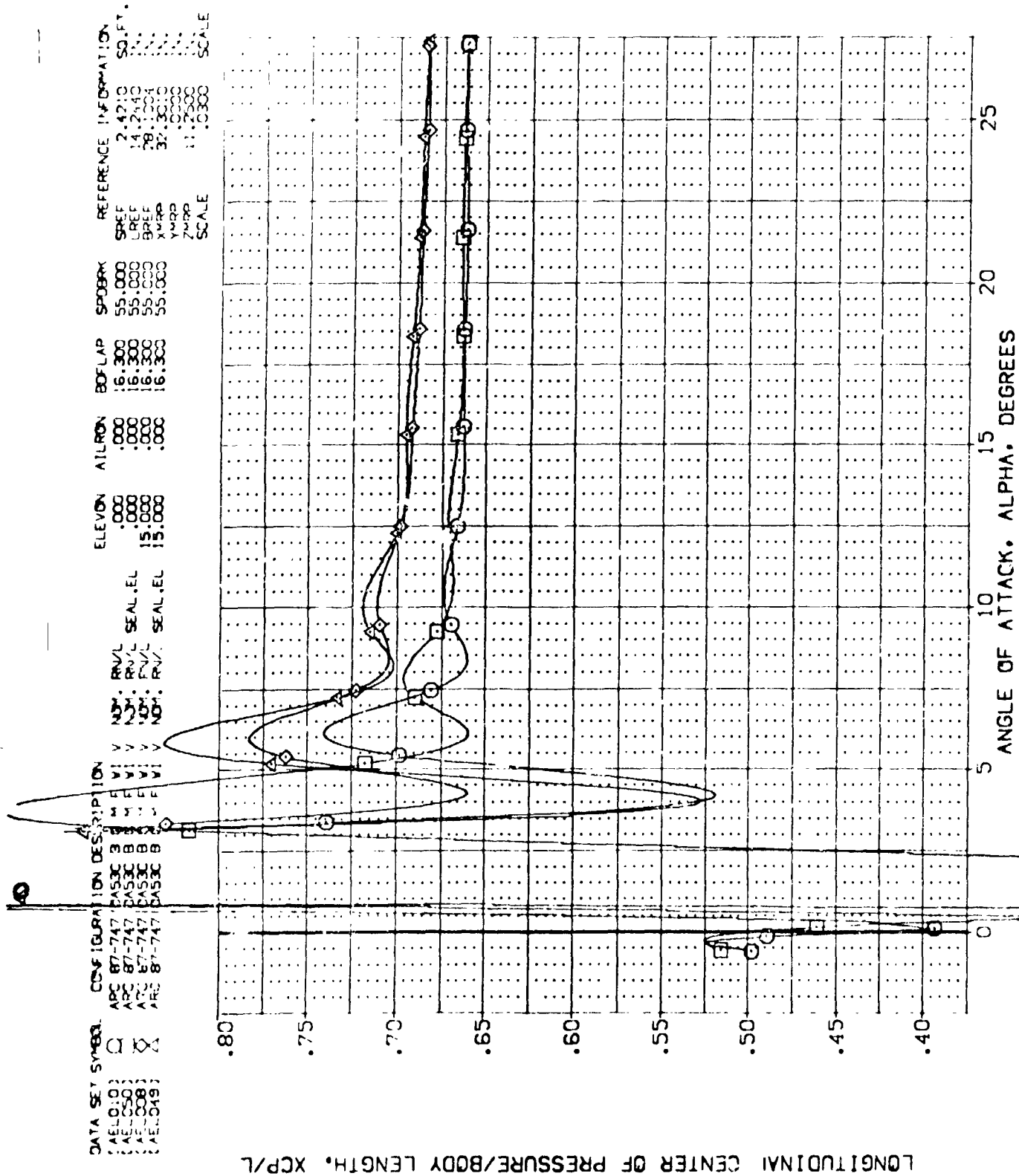


FIG. 10 SEALED ELEVEN SPLIT EFFECTS

~~(B) MACH = 3.00~~



REFERENCE INFORMATION		SO. FY.
SREF	2,4210	1
LREF	14,2440	1
BREF	28,1300	1
XMRP	32,3010	1
YMRP	0000	1
ZMRP	11,2600	1
SCALE	0.000	SCALE

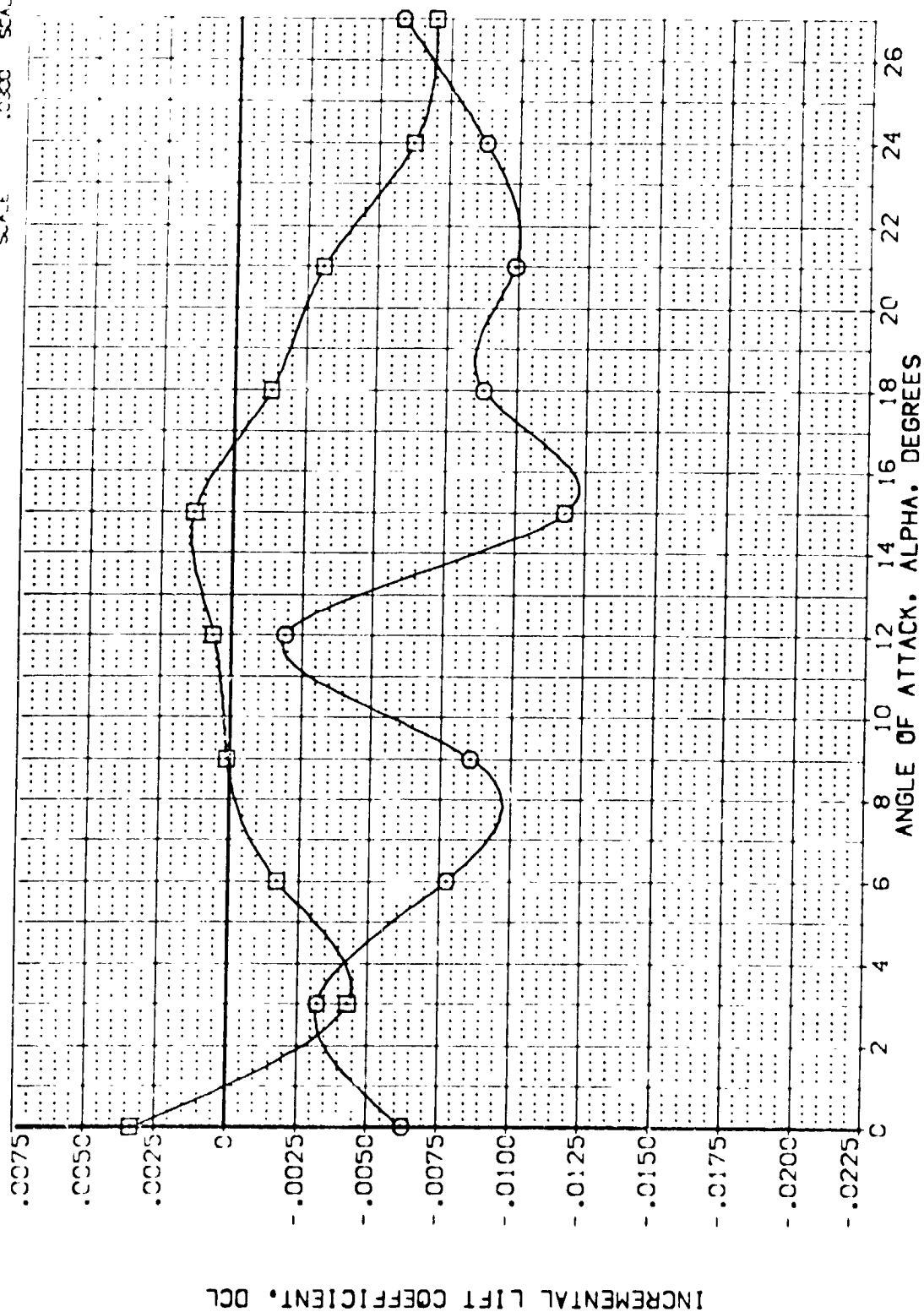


FIG. 10 SEALED ELEVEN SPLIT EFFECTS

$$[A]_{MAC} = 2.50$$



DATA SET SYMBOL: (VE-050) (VE-049)

CONFIGURATION DESCRIPTION:  
 ARC 87-747 DASSC B C M F VI V  
 ARC 87-747 DASSC B C M F VI V

REF: 2.4210 SQ. FT.  
 SREF: 14.2440  
 LREF: 28.1104  
 XREF: 37.3010  
 YREF: 11.0000  
 ZREF: 11.0000  
 SCALE: 11.0000

ELEVON: .000  
 AILERON: .000  
 BOFL: 16.300  
 SPORAK: 55.000  
 55.000

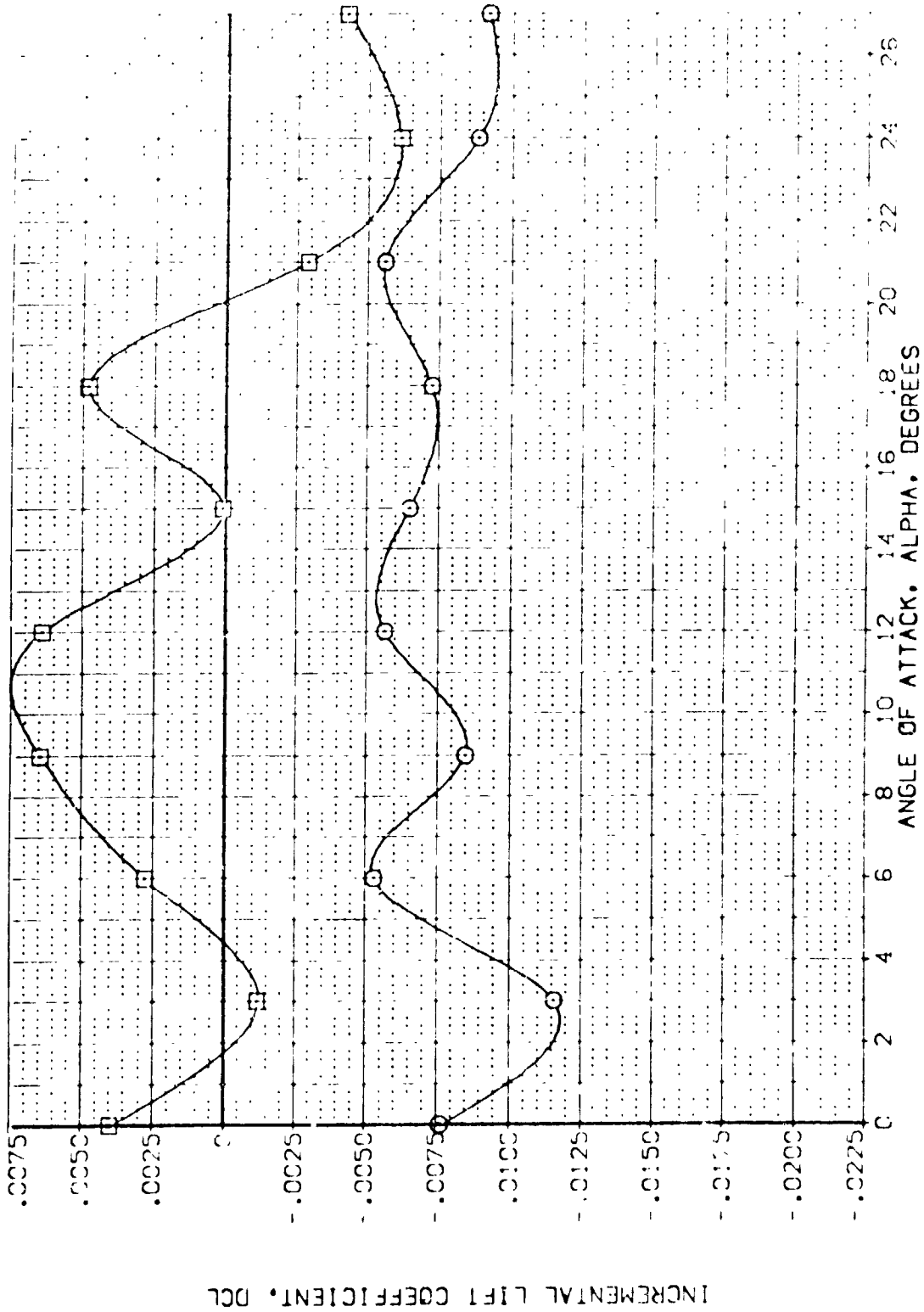


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL: 9  
 [ELOS] ARC 87-747 BASIC B C M F V  
 [ELOS] ARC 87-747 BASIC B C M F V

CONFIGURATION DESCRIPTION  
 REFERENCE INFORMATION  
 SREF 2 4210 SC  
 BREF 14 3440 SC  
 XREF 28 004 SC  
 YREF 32 004 SC  
 XREF 0000 SC  
 YREF 0000 SC  
 XREF 11 0000 SC  
 YREF 11 0000 SC  
 SCALE 11 0000 SC

BOF LAP 55.000  
 BOF LAP 55.000  
 BOF LAP 55.000

AIRION 0.000  
 AIRION 0.000  
 AIRION 0.000

ELEVON 15.000  
 ELEVON 15.000  
 ELEVON 15.000

NON: RV/L SEAL:EL  
 NON: RV/L SEAL:EL  
 NON: RV/L SEAL:EL

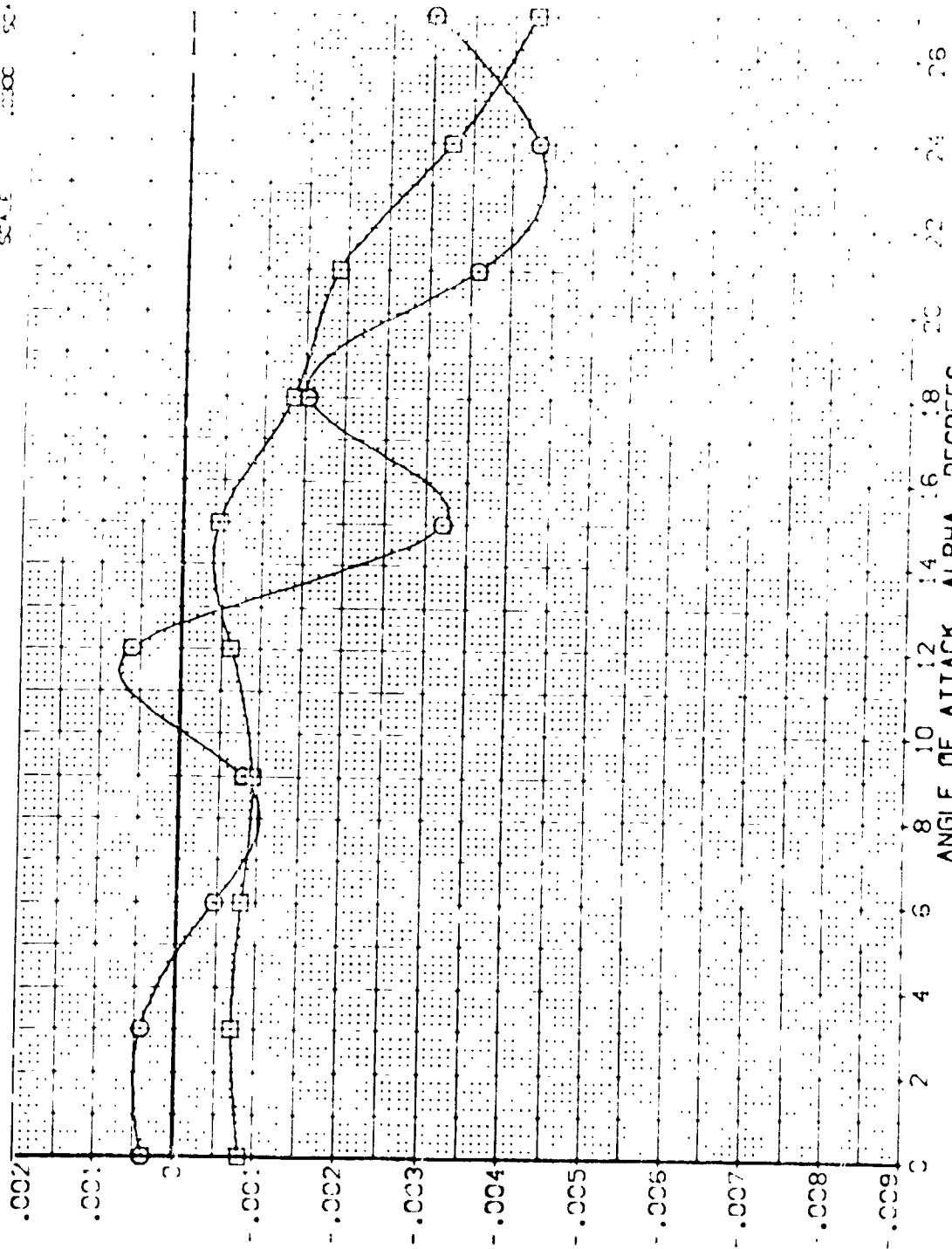


FIG. 10 SEALED ELEVON SPLIT EFFECTS

CADYAC = 2.50

DATA SET SYMBOL: 01  
 CONFIGURATION DESCRIPTION: APC 87-747 C-53C B C M F VI V  
 REFERENCE INFORMATION:  
 SREF: 2.4210 SREF: 55.000  
 LREF: 14.2440 LREF: 55.000  
 BREF: 28.1004 BREF: 55.000  
 AREF: 32.3010 AREF: 55.000  
 VREF: 11.7500 VREF: 55.000  
 SCALE: 10300 SCALE: 55.000

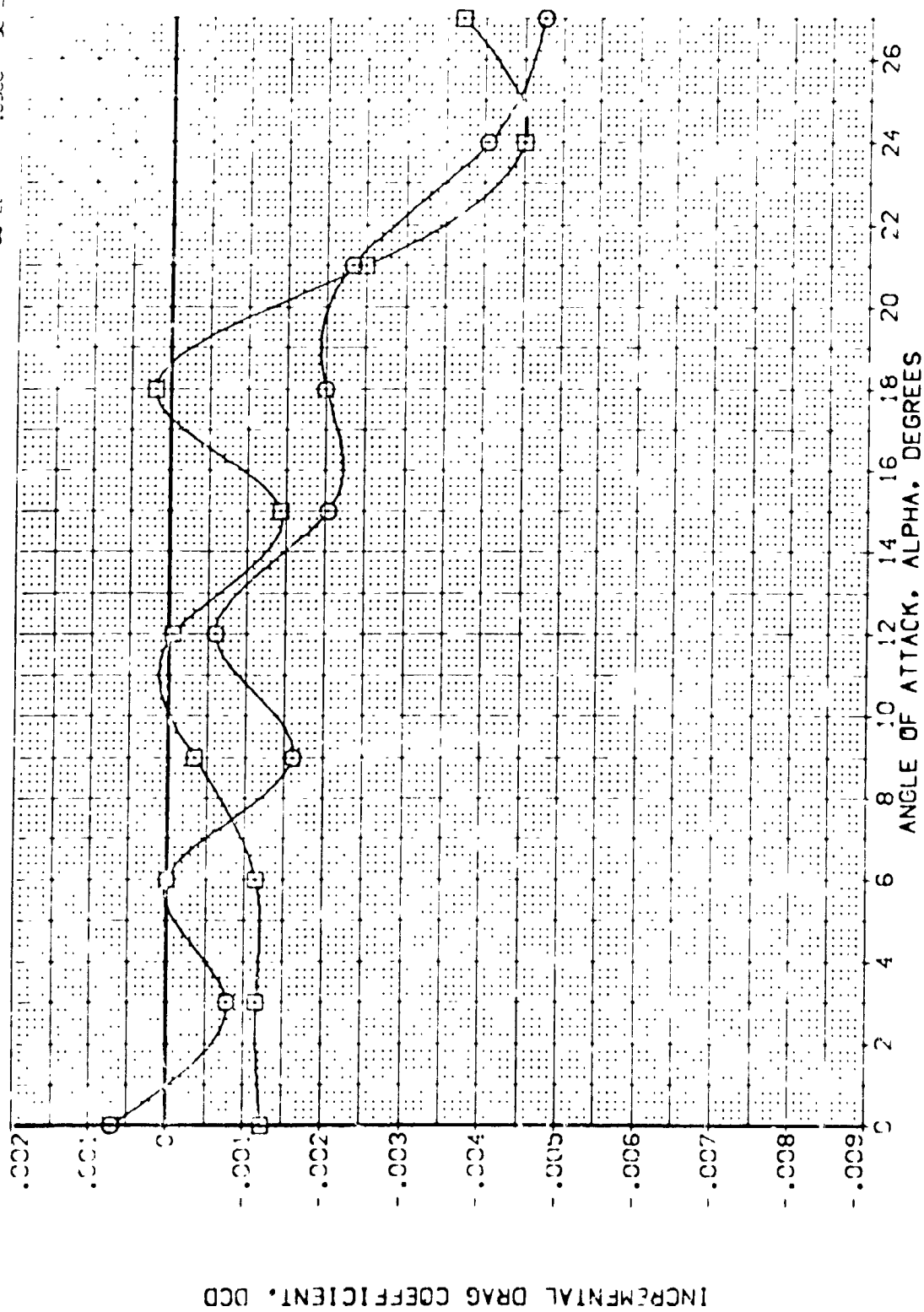


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MAC = 3.00



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ELEVON    AIRLON    BOFLAP    SPOBRK    REFERENCE INFORMATION

(VEL-050)	ARC 87-747 DASSC B C M F V I V	NOM: RNVL SEAL.EL	.000	16.300	55.000	SREF 2.4210
(VEL-049)	ARC 87-747 DASSC B C M F V I V	NOM: RNVL SEAL.EL	.000	16.300	55.000	LREF 14.2440
						BREF 28.1004
						YMRP 32.3010
						ZMRP .0000
						SCALE 11.2500
						SCALE .0000

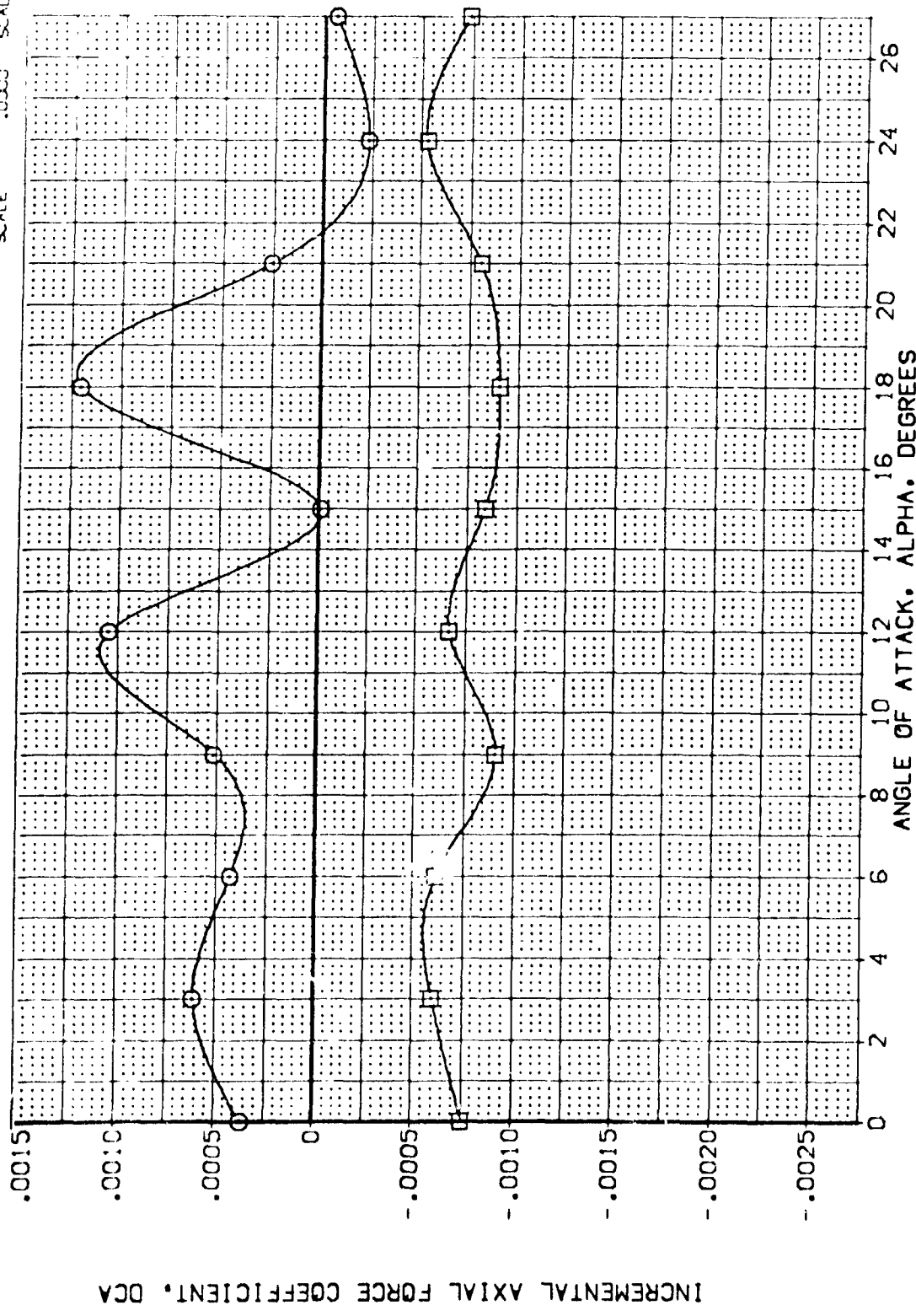


FIG. 10 SEALED ELEVON SPLIT EFFECTS

CA/MACH = 2.50

DATA SET SYMBOL: [ ]  
 [ ] VELO50  
 [ ] VELO49

CONFIGURATION DESCRIPTION:  
 ARC 87-747 QAS3C B C M F V I V  
 ARC 87-747 QAS3C B C M F V I V

REFERENCE INFORMATION:  
 SREF 2.4710 50.17  
 LREF 14.2440  
 BREF 28.1004  
 XREF 37.3010  
 YREF 0.0000  
 ZREF 11.2500  
 SCALE 0.0000

ELEVON: .000  
 AIRRON: .000  
 BDF LAP: 16.300  
 SPOBARK: 55.000  
 55.000

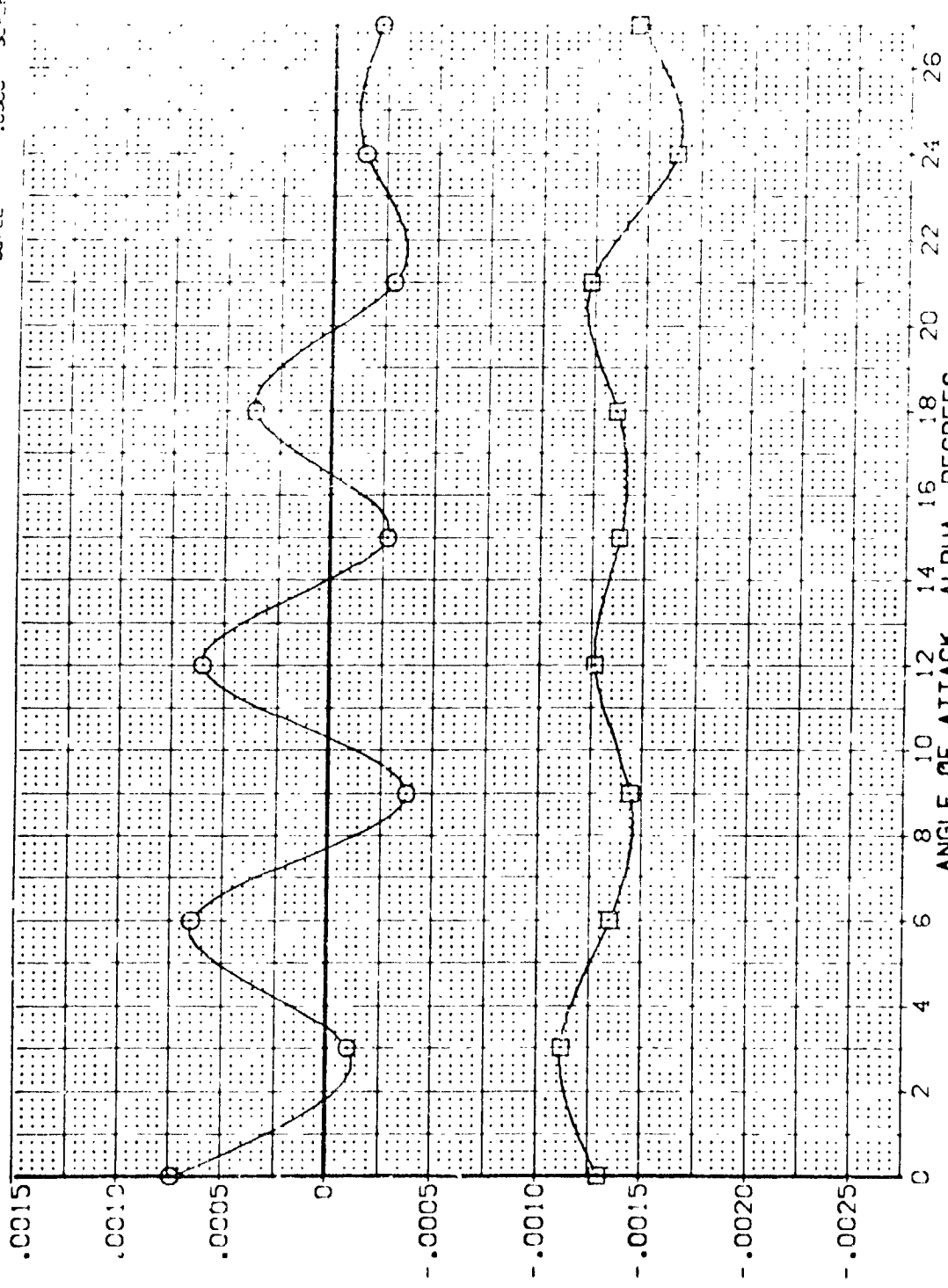


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B) MACH = 3.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		AILRON		BOFLAP		SPDBW		REFERENCE INFORMATION	
(VE-050)	○	ARC 87-747	CAS3C B C M F V	V	NON	RV/L SEAL/EL	.000	.000	16.300	55.000	2.4210	SC/FT.	
(VE-049)	□	ARC 87-747	CAS3C B C M F V	V	NON	RV/L SEAL/EL	.000	.000	16.300	55.000	14.2440	SC/FT.	
											28.1000		
											32.3010		
											11.0000		
											11.2500		
											10.300	SCALE	

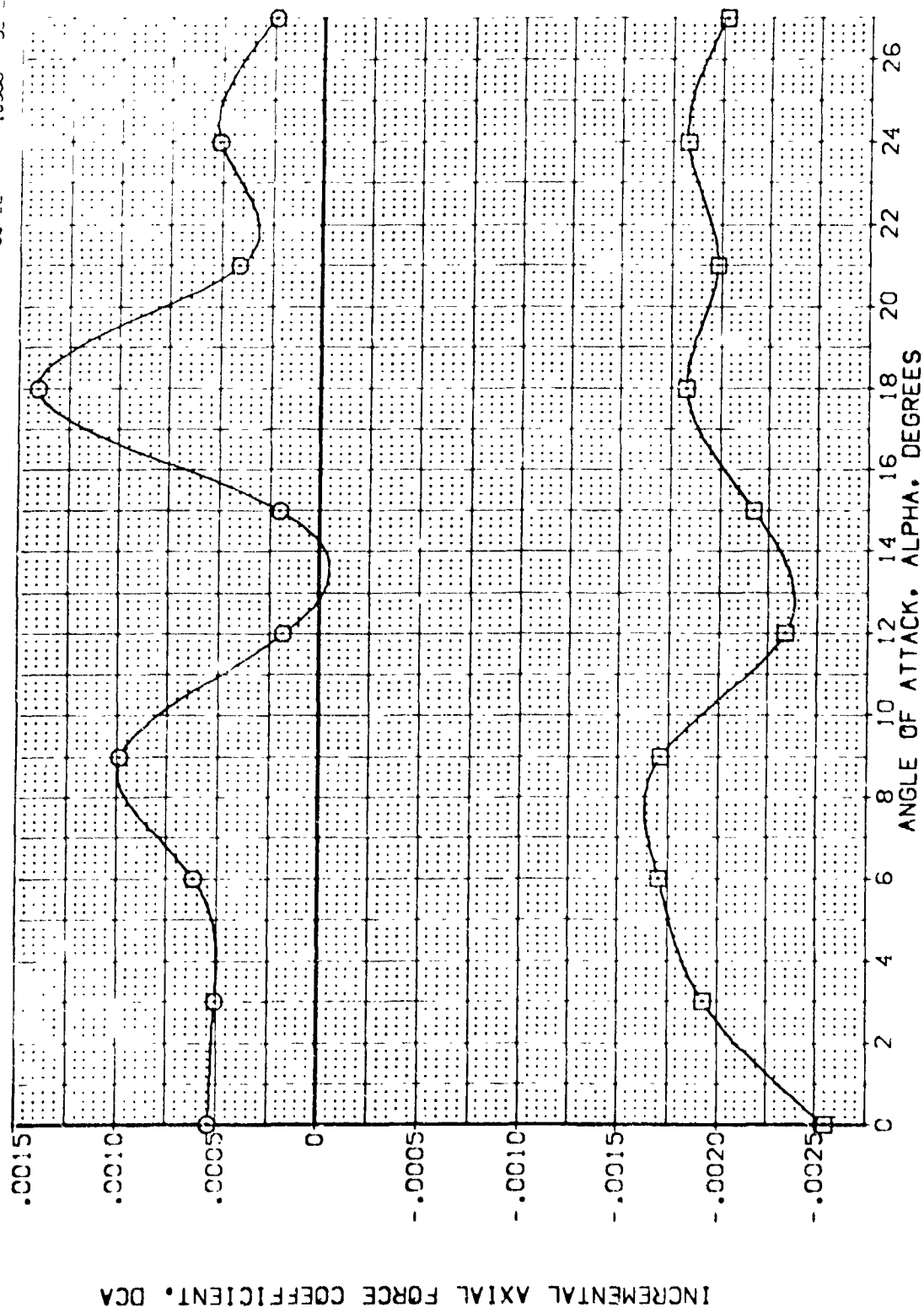


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)VACH = 3.50



DATA SET SYMBOL: Q  
 (VELOCITY) ARC 87-747 OASIC B C M F V I V  
 (VELOCITY) ARC 87-747 OASIC B C M F V I V

CONFIGURATION DESCRIPTION: ELEVON AILERON BOFLAP SPOILER  
 ELEVON AILERON BOFLAP SPOILER  
 ELEVON AILERON BOFLAP SPOILER

REFERENCE INFORMATION: SREF 2.4210 SC.FT.  
 LREF 14.2440  
 BREF 28.1004  
 XREF 32.0000  
 YREF 0.0000  
 ZREF 11.0000  
 SCALE 0.0000

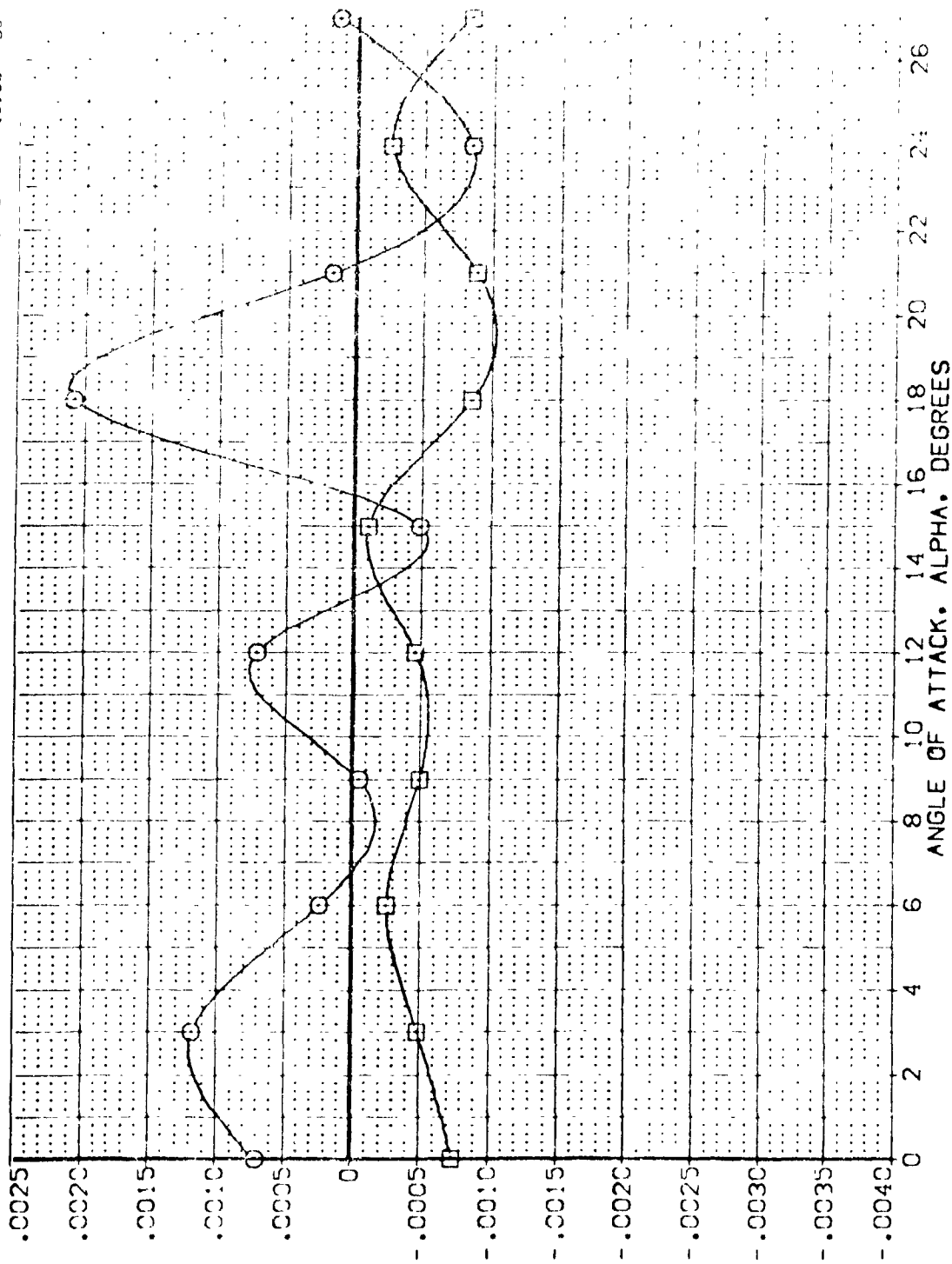


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(M)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (VEL050) [ ] ARC 87-747 D453C B C M F V [ ] V  
 (VEL049) [ ] ARC 87-747 D453C B C M F V [ ] V

ELEVON AIRLON BOFLAP SPOBRK  
 .000 .000 55.000  
 .000 .000 55.000

REFERENCE INFORMATION  
 SREF 2.42 0 50.0 FT.  
 (REF 14.000  
 BREF 28.000  
 XREF 32.000  
 YREF 0.000  
 ZREF 0.000  
 SCALE 1.000

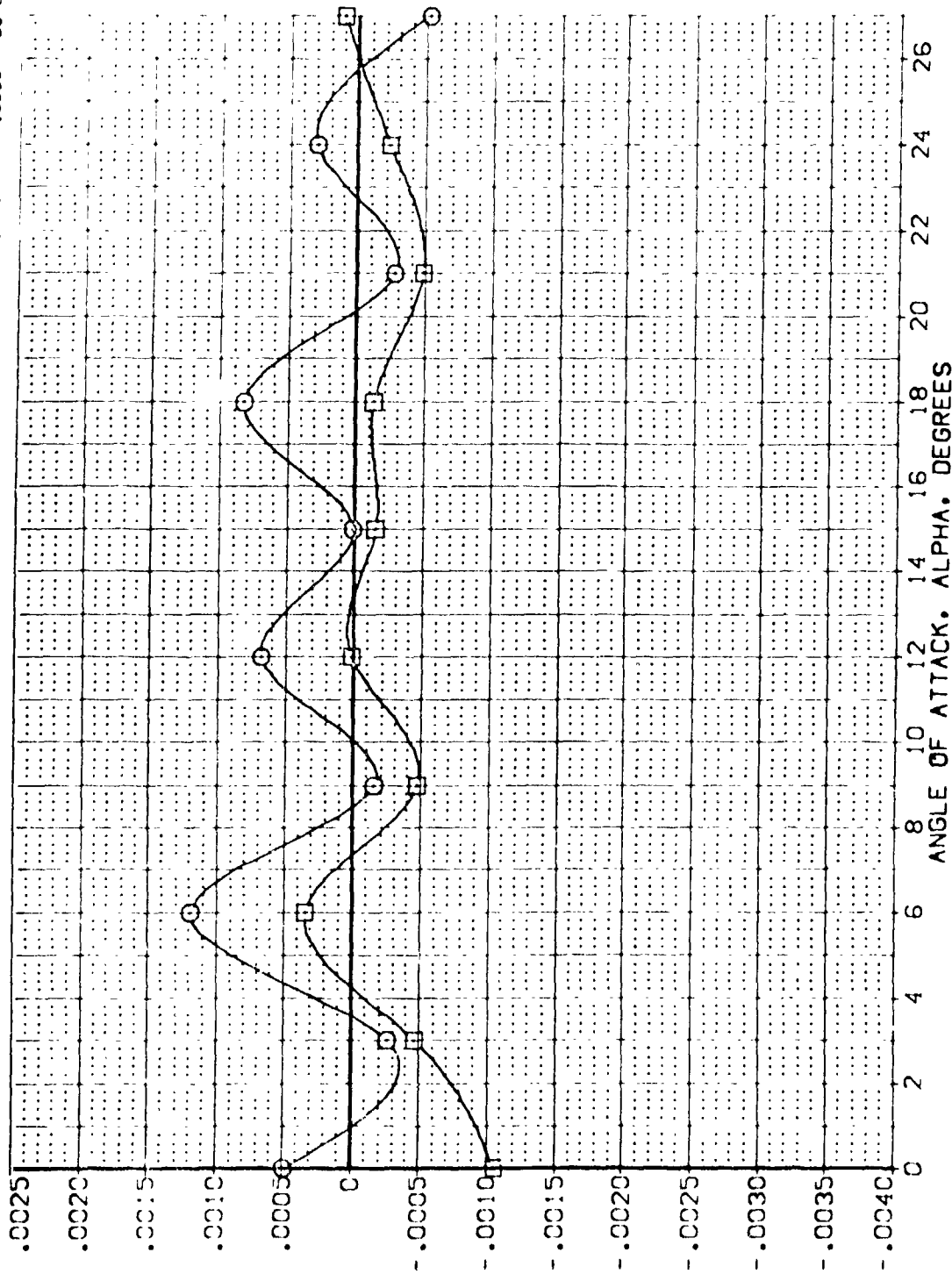


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MAC = 3.00

DATA SET SYMBOL: [VELO50] [VELO49]  
 CONFIGURATION DESCRIPTION: ARC 87-747 CAS3C B C M F VI V  
 ARC 87-747 CAS3C B C M F VI V

ELEVON: .000  
 ALLRON: .000  
 BOFLAP: 16.300  
 SPOBRN: 55.000

REFERENCE INFORMATION:  
 SREF: 2.4212  
 LREF: 14.7442  
 BREF: 28.0004  
 XREF: 32.0000  
 YREF: 11.0000  
 ZREF: 11.0000  
 SCALE: .0000

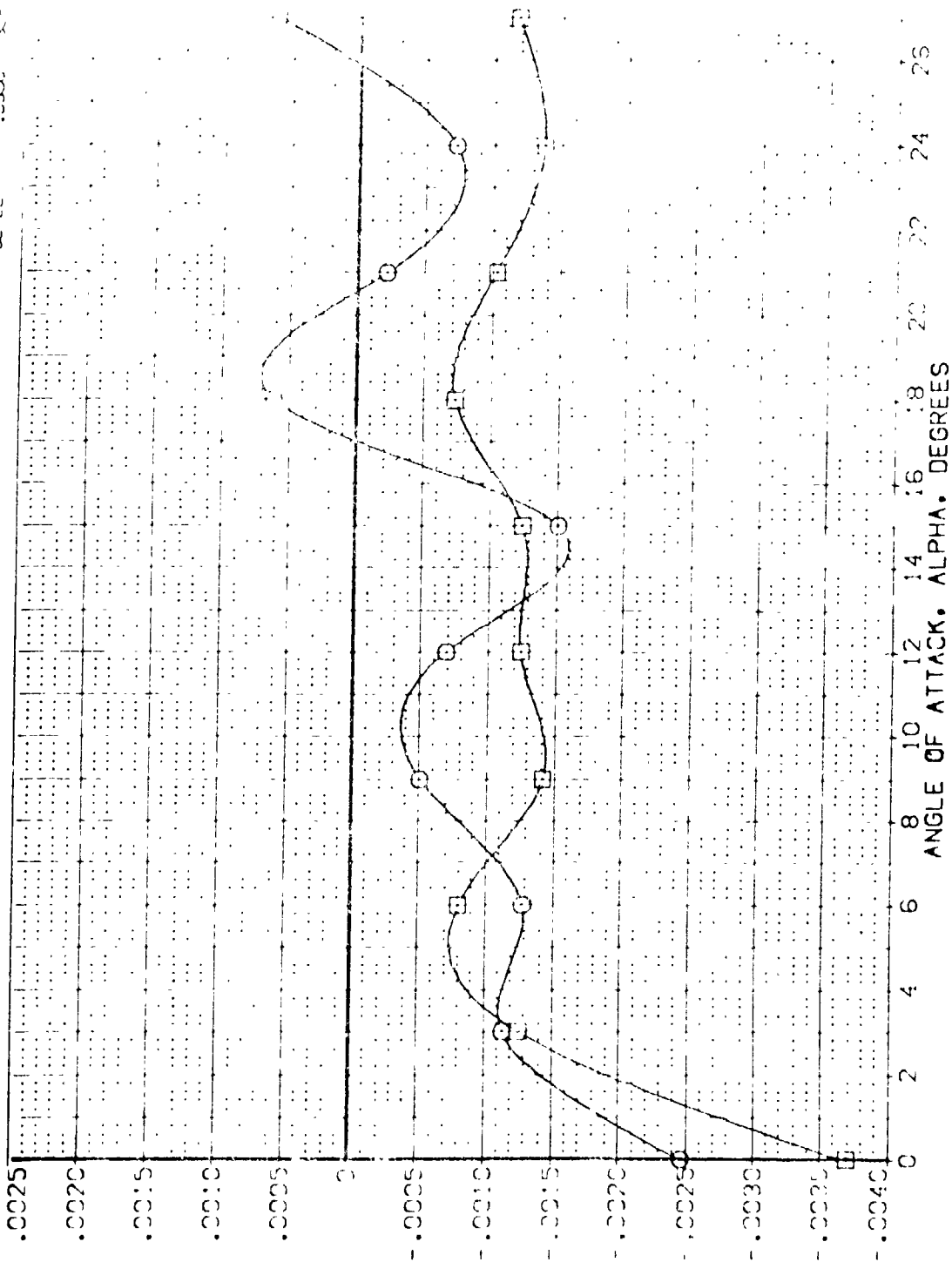


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		A1LRON		BDFLAP		SPDBRK		REFERENCE INFORMATION	
[VEL050]	ARC 87-747	QAS3C	B C M F VI	V	NON	RMVL	SEAL-EL	15.000	.000	16.300	55.000	SREF	2.4210
[VEL049]	ARC 87-747	QAS3C	B C M F VI	V	NON	RMVL	SEAL-EL	15.000	.000	16.300	55.000	LRFE	14.2440
												BRLE	28.1004
												XMRR	32.3000
												YMRR	11.0000
												ZMRR	11.0000
												SCALE	.0300
												SCALE	.0300

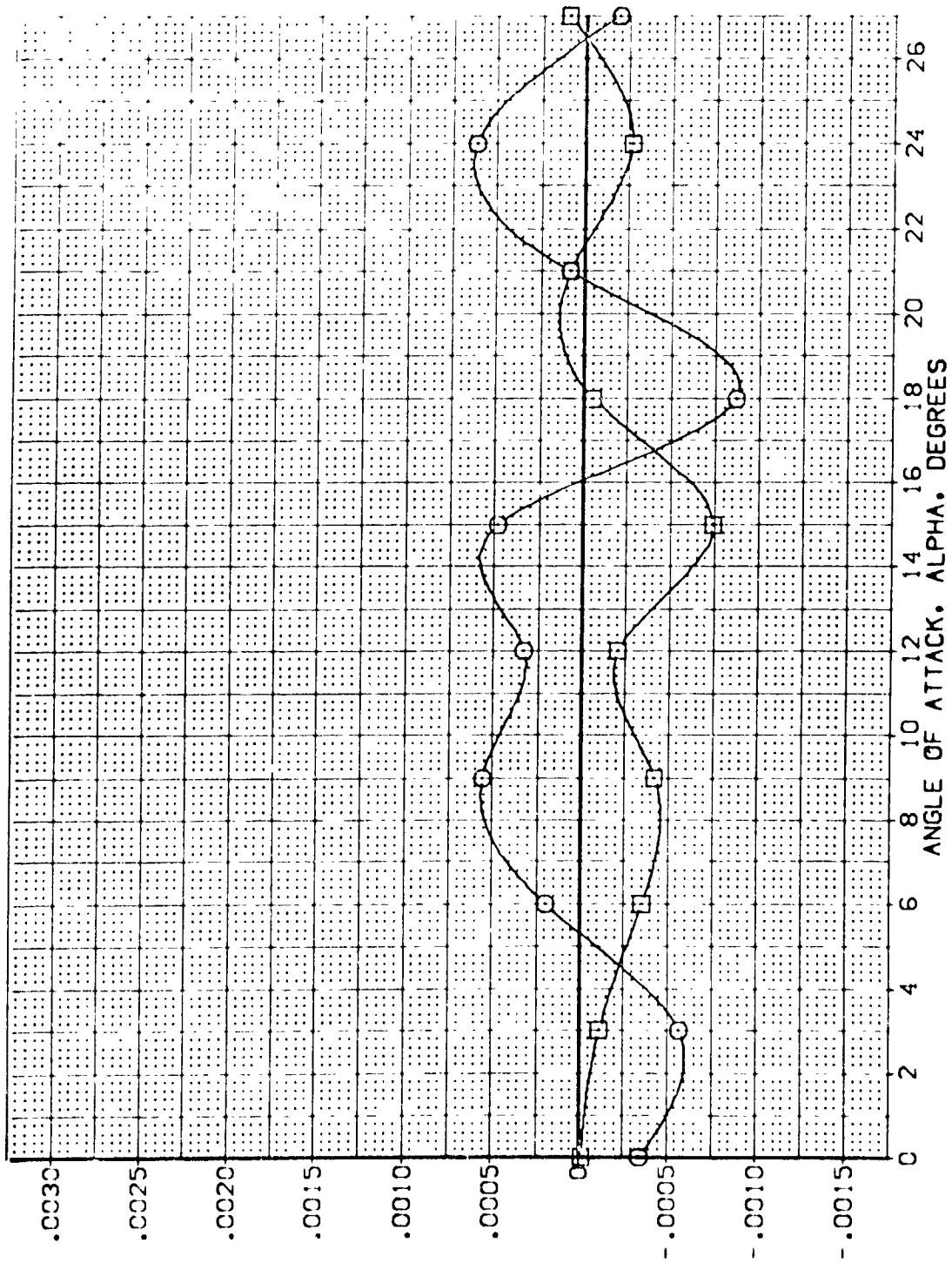


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(M)MACH = 2.50

DATA SET SYMBOL: [VELO50] [VELO49]

CONFIGURATION DESCRIPTION: ARC 87-747 GAS3C B C M F V; Y NOT; RNL SEAL EL; V NOT; RNL SEAL EL

REFERENCE INFORMATION: SREF 2.4210 50.000; LREF 14.2440 10.000; BREF 28.000 10.000; XREF 32.000 10.000; YREF 11.000 10.000; ZREF 11.000 10.000; SCALE 10.000

SPDBRK: 55.000 55.000

BOFLAP: 16.300 16.300

AIRLON: .000 .000

ELEVON: .000 15.000

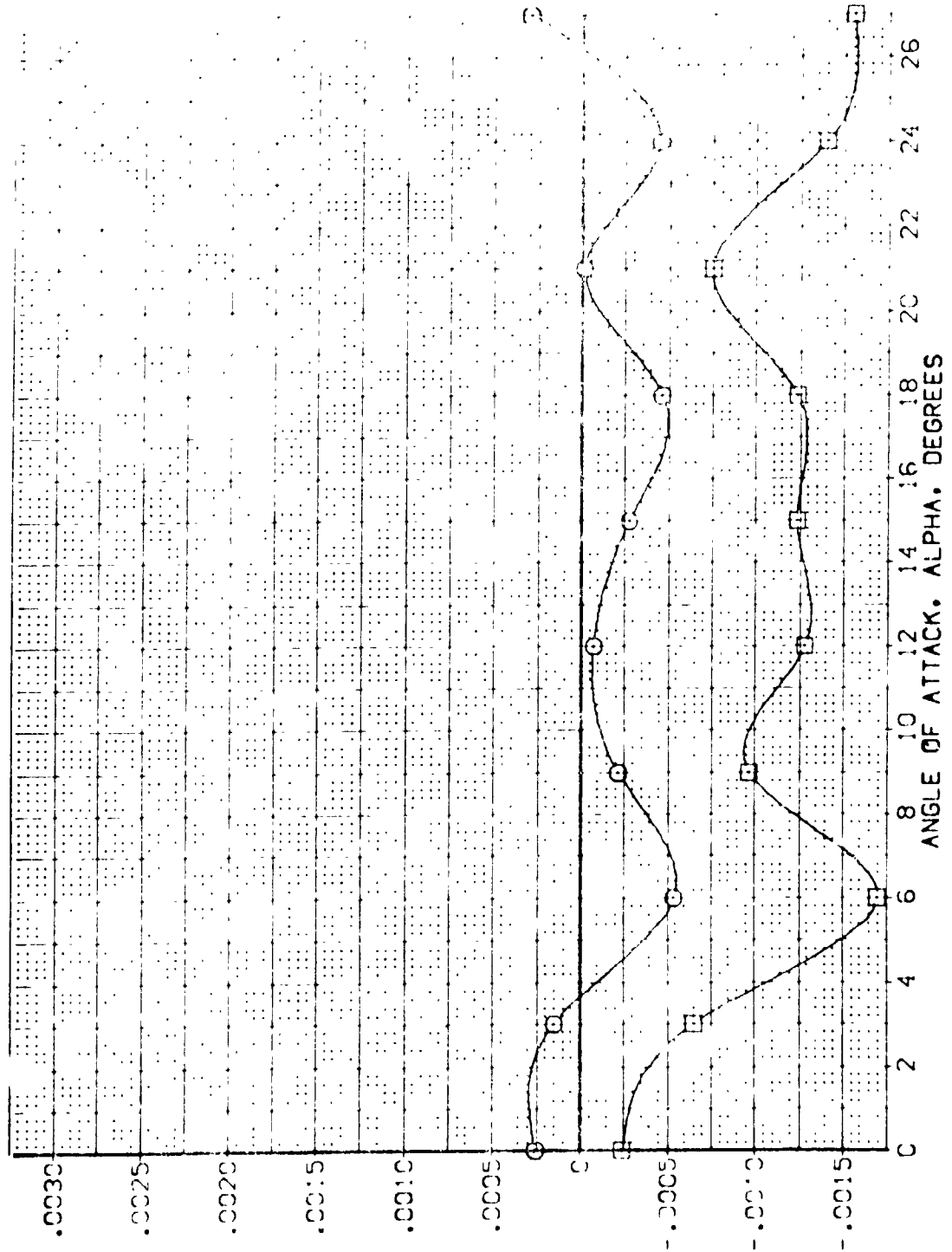


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B) MACH = 3.00

DATA SET SYMBOL: CONFIGURATION DESCRIPTION: REFERENCE INFORMATION:

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
(VEL050)	ARC 87-747 BASIC B C M F V	SPREF 2.4210 SQ.FT.
(VEL049)	ARC 87-747 BASIC B C M F V	LREF 14.2440
		BREF 28.1004
		XMRD 32.3010
		YMRD 11.0000
		ZMRD 11.0000
		SCALE 10.000

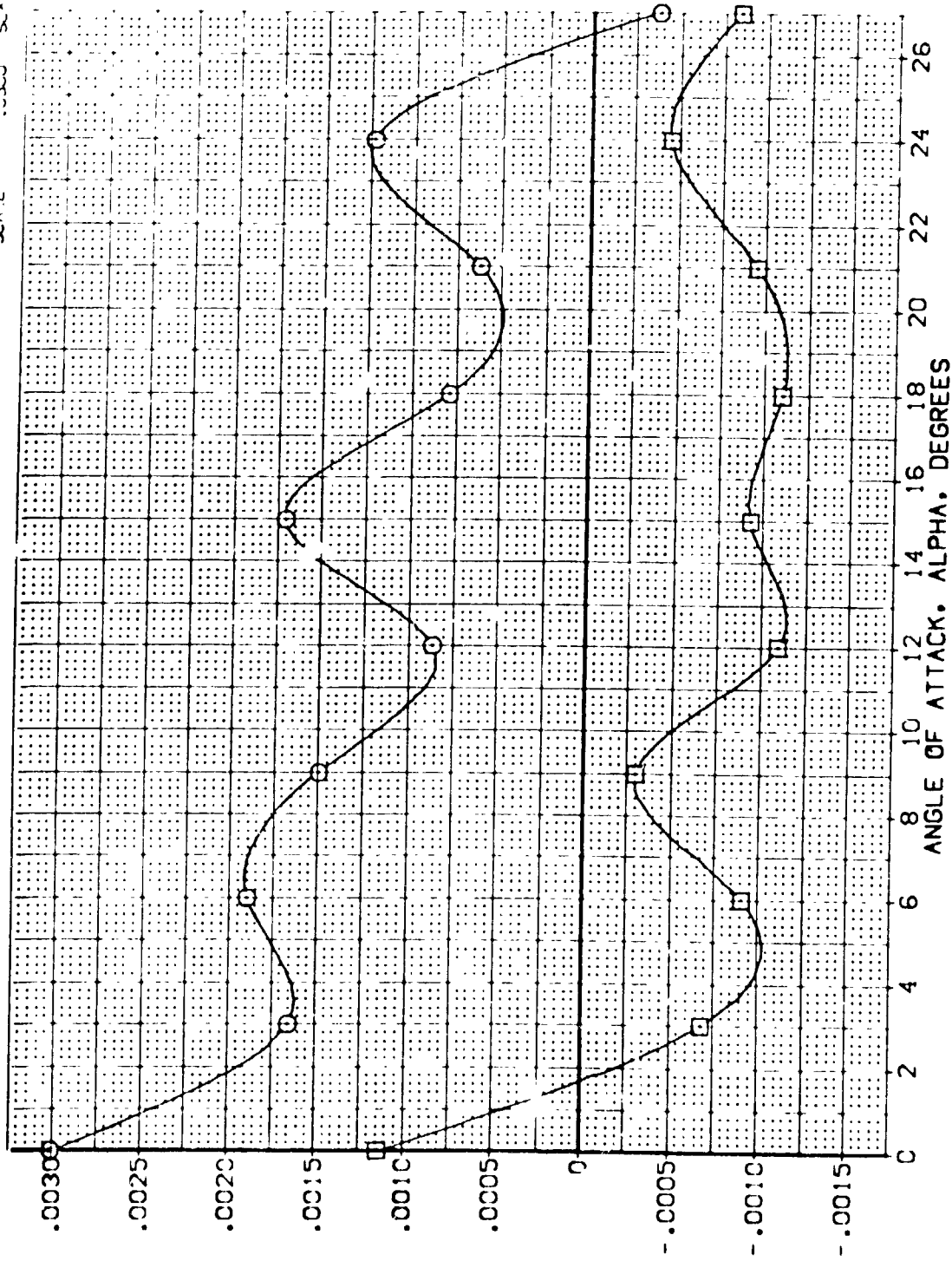


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL: H  
 (VE:050)  
 (VEL:049)

CONFIGURATION DESCRIPTION  
 ARC 87-747 BASIC B C H F VI V  
 ARC 87-747 BASIC B C H F VI V

ELEVON  
 SEAL:EL  
 SEAL:EL

ATL:RN  
 .000  
 .000

BOLAP  
 16.300  
 16.300

SPOBRK  
 55.000  
 55.000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.2440  
 BRFE 28.1004  
 XMRD 32.3000  
 YMRD .0000  
 ZMRD .0000  
 SCALE 11.0000

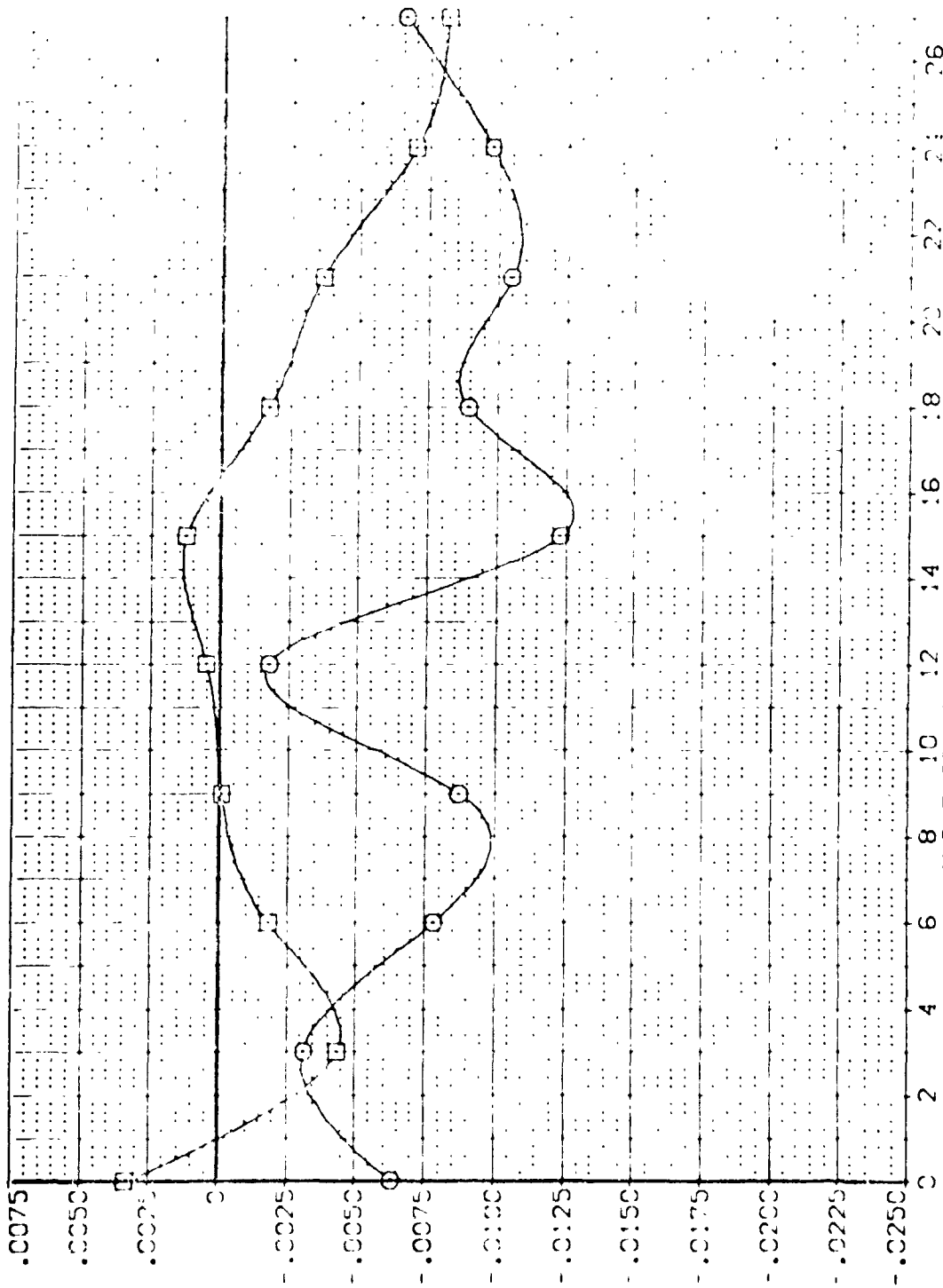


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(M)MACH = 2.50

DATA SET SYMBOL: ARC 87-747 BASIC B C M F V I V  
 (VELOCITY) (VELOCITY)  
 REFERENCE INFORMATION:  
 SREF 2.4210 SQ. FT.  
 LREF 14.2440  
 BREF 28.1304  
 YMRD 32.3000  
 ZMRD 11.0000  
 SCALE 10.300

CONFIGURATION DESCRIPTION:  
 ARC 87-747 BASIC B C M F V I V  
 NOM: RNVL SEAL EL  
 NOM: RNVL SEAL EL  
 ELEVON 15.000  
 AILRON .000  
 BUFLAP 16.300  
 SPOBKM 55.000  
 SPOBKM 55.000

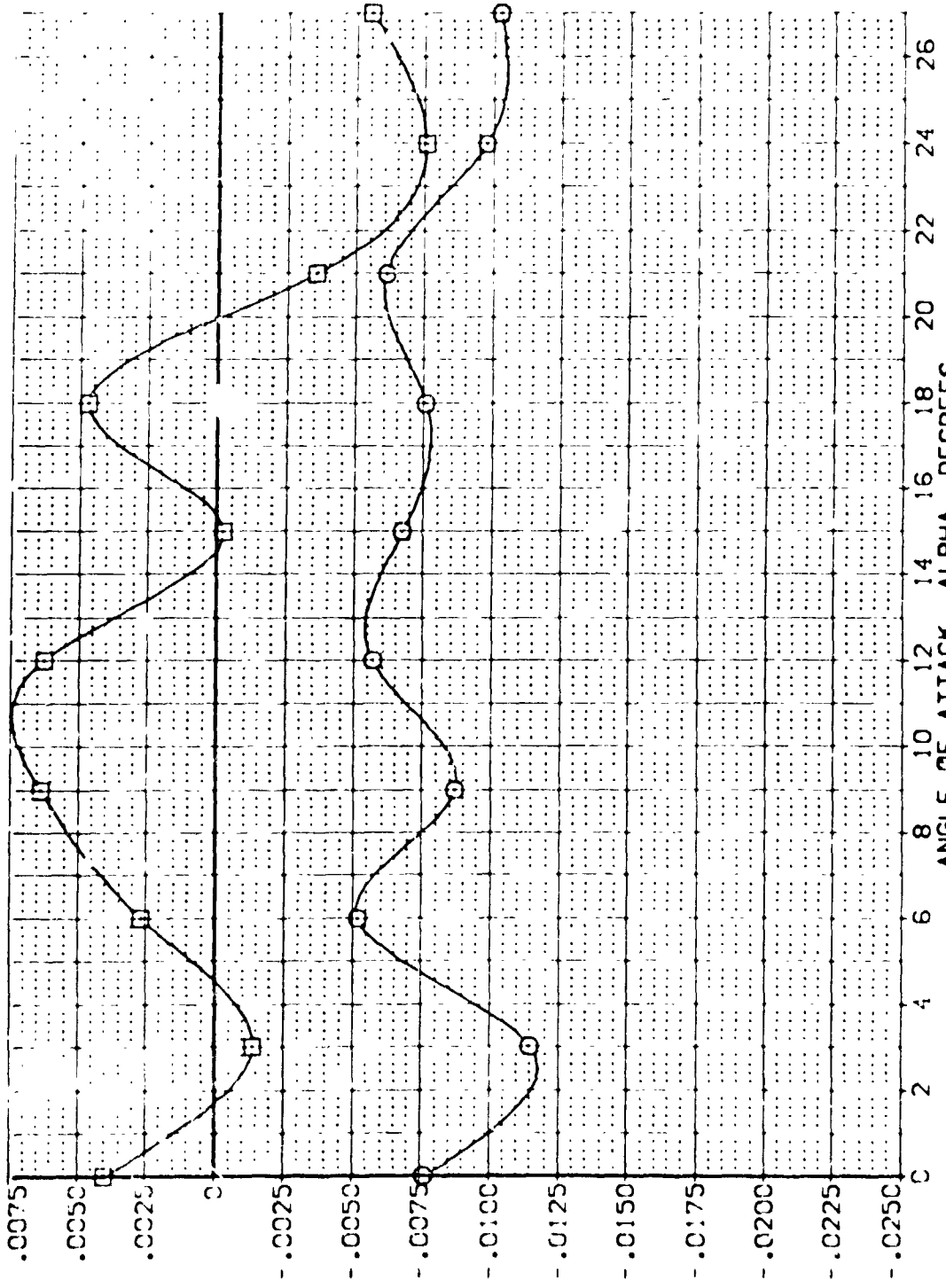


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(B)MACH = 3.00



DATA SET SYMBOL: CONFIGURATION DESCRIPTION: REFERENCE INFORMATION:

VELOCITY	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL
1	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL
2	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL
3	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL
4	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL
5	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL
6	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL
7	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL
8	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL
9	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL
10	ARC 87-747 CLASSIC B C M F V	NON- RN/L SEAL-EL	ELEVON	ATLIRON	BOFLAP	SPODBK	SREF	SCAL

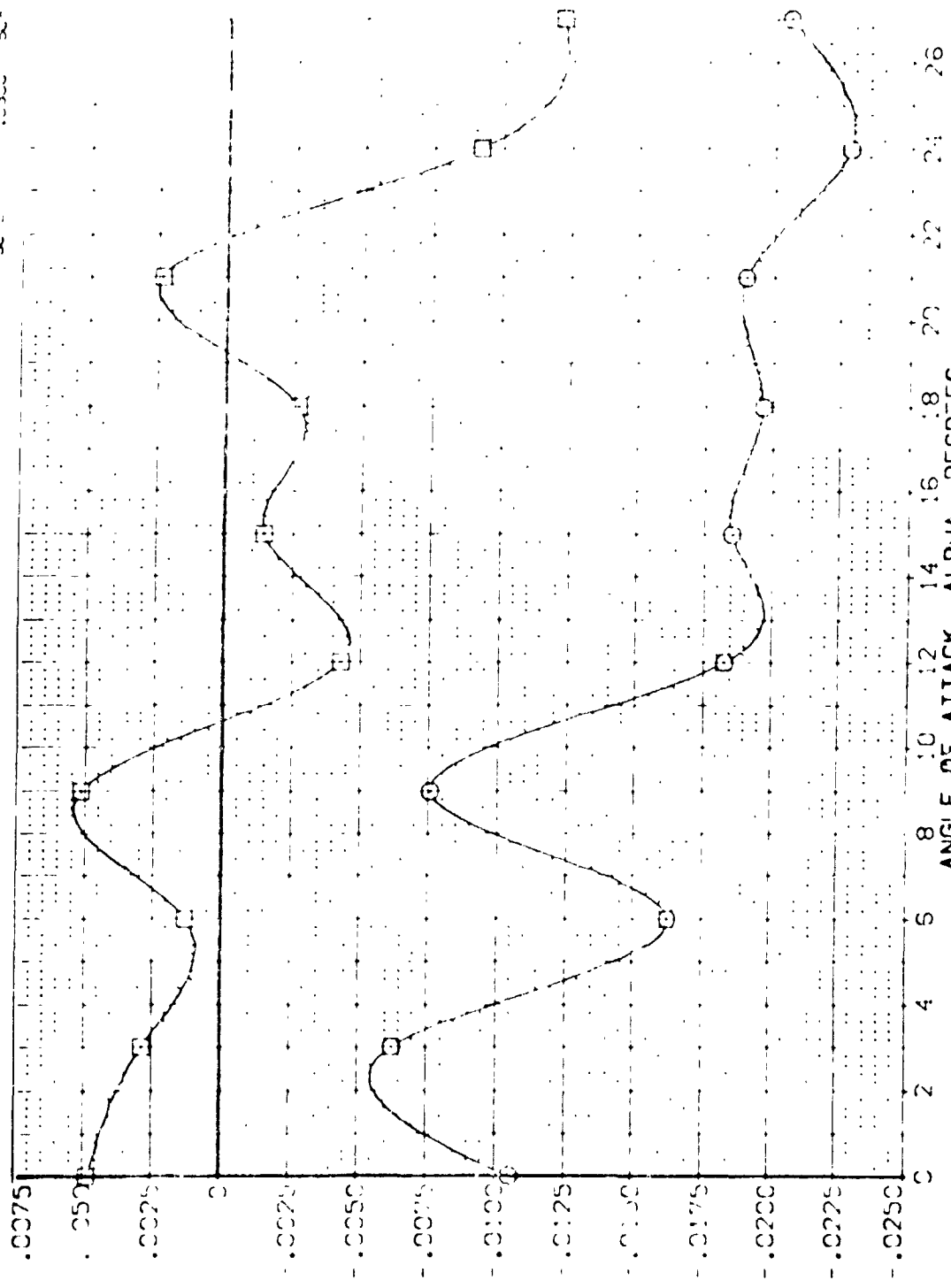


FIG. 10 SEALED ELEVON SPLIT EFFECTS

(C)MAC = 3.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		AILRON		EOLAP		SPDRK		REFERENCE INFORMATION	
(VEL050)	□	ARC 87-747	DA53C B C M F VI	NOM.	RM/L SEAL-EL	.000	.000	16.300	55.000	SREF	2.4210	SO.F.T.	
(VEL049)	□	ARC 87-747	DA53C B C M F VI	NOM.	RM/L SEAL-EL	.000	.000	16.300	55.000	LRREF	14.2440		
										BRREF	28.1004		
										XMREF	32.3010		
										YMREF	11.0000		
										ZMREF	11.0000		
										SCALE	10.300	SCALE	

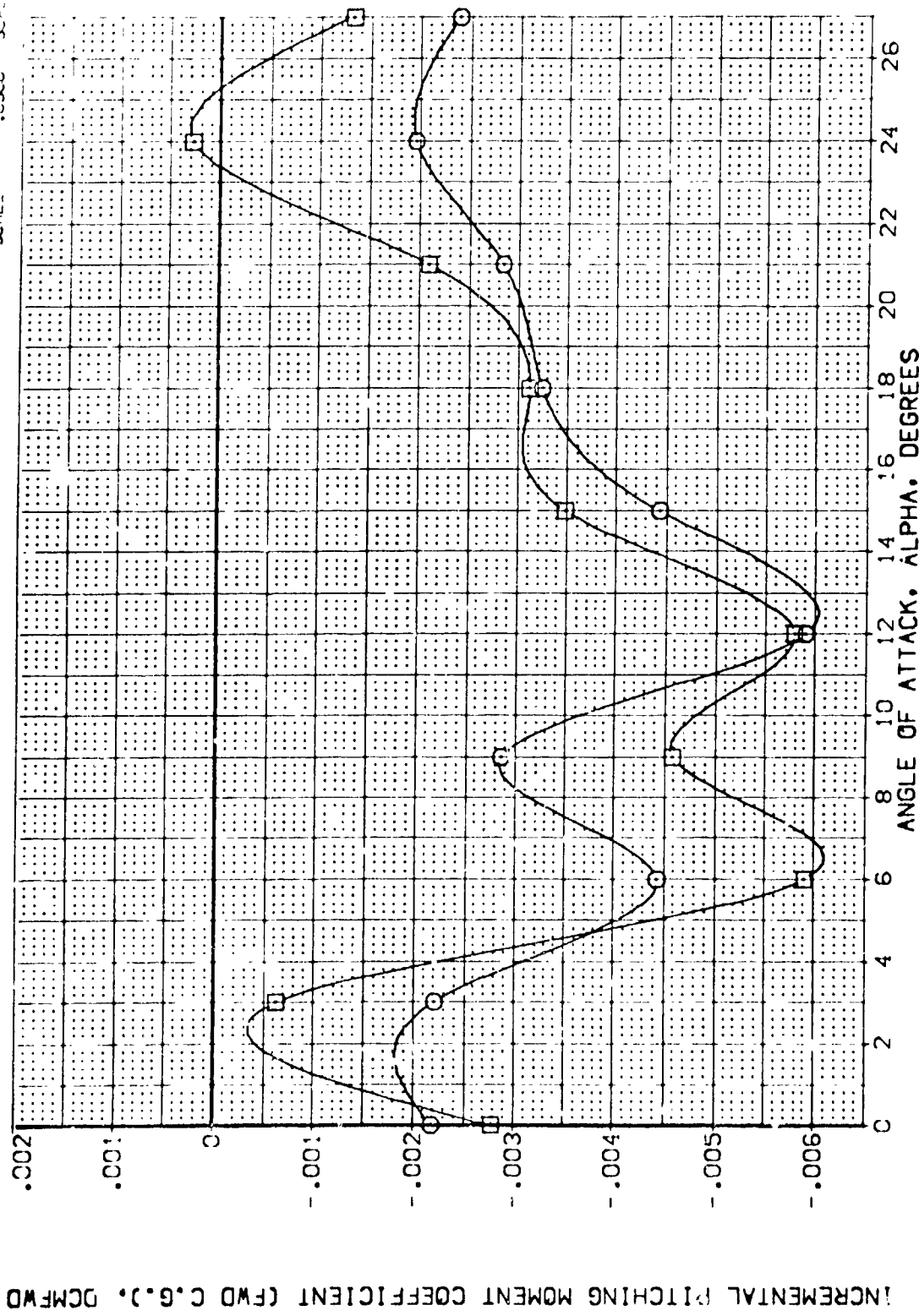
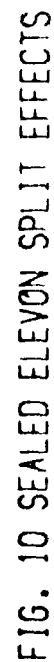


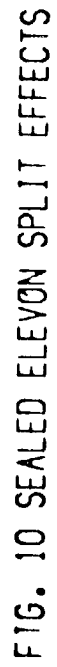
FIG. 10 SEALED ELEVON SPLIT EFFECTS

(A)MACH = 2.50

REFERENCE INFORMATION	
SPICE	2 4210 SQ.FT.
REF	14 2440
SPICE	28 1004
WDO	32 8100
WDO	5000
WDO	11 2000
SCALE	1000



CBMACH = 3.00

[illegible]

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (AE-050) Q ARC 87-747 QAS3C B C M F V V  
 (AE-049) Q ARC 87-747 QAS3C B C M F V V

ELEVON AIRFOIL BDF LAR SPDBRK  
 .000 .000 .000 55.000  
 .000 .000 .000 55.000

REFERENCE INFORMATION:  
 SREF 2.4210 SQ.FT.  
 LBREF 14.2440  
 BRREF 28.0004  
 XREF 37.3010  
 YREF 11.7500  
 ZREF 11.7500  
 SCALE 10.000

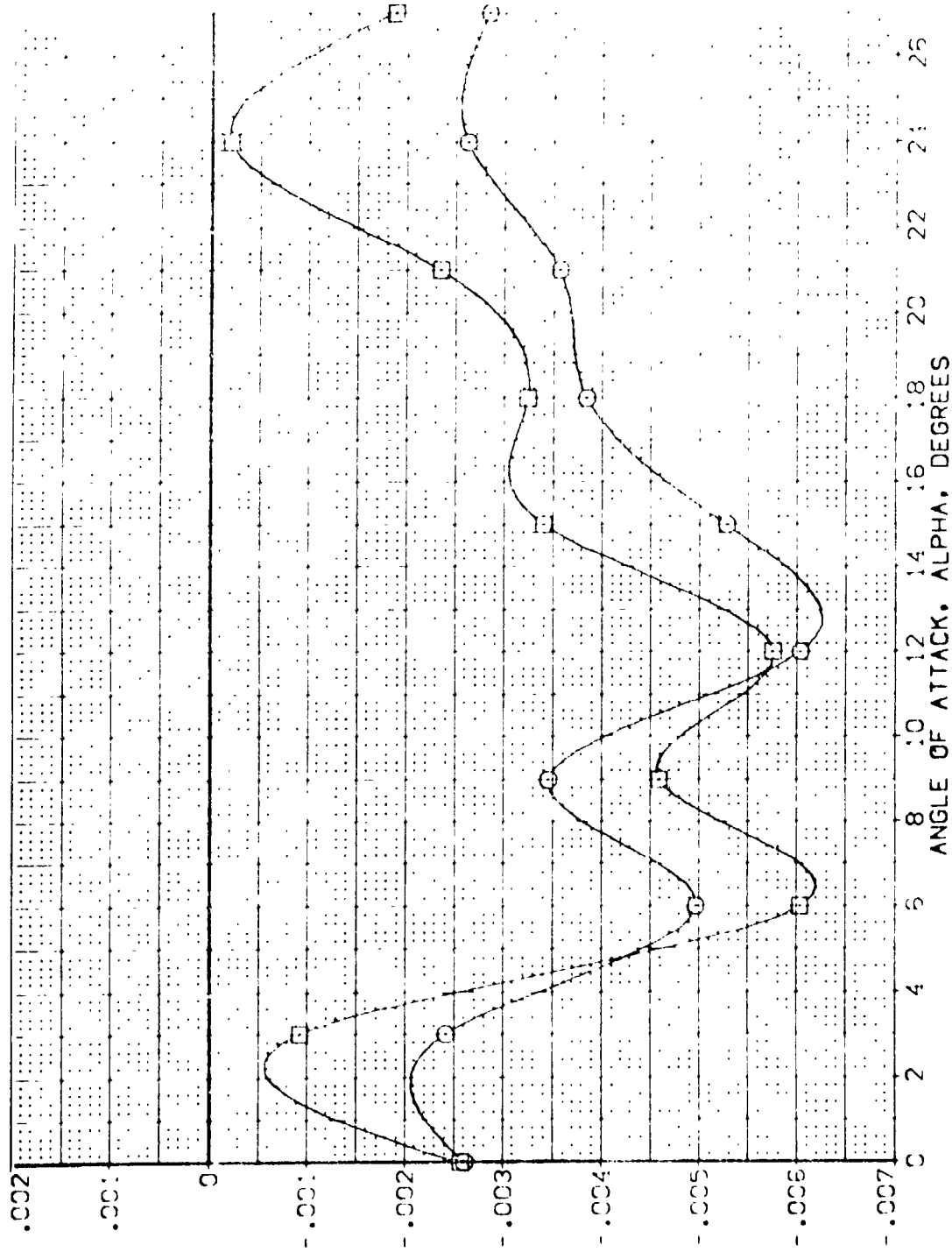


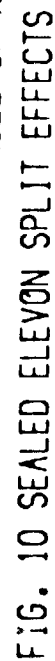
FIG. 10 SEALED ELEVON SPLIT EFFECTS

(A)MACH = 2.50

INCREMENTAL PITCHING MOMENT COEFFICIENT (CFT C.G.), DCMAFT



INCREMENTAL PITCHING MOMENT COEFFICIENT (AFT C.G.), DCMAT 1



(B)WAC I	=	3.00
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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BOFLAP	SPODBK	AIRLON	REFERENCE INFORMATION
[AEU:0:2]	ARC 87-747 CAS3C B C M F V	0.000	-11.700	55.000	.000	2.4210 SQ. FT.
[AEU:0:3]	ARC 87-747 CAS3C B C M F V	10.000	-11.700	55.000	.000	14.2440
[AEU:0:4]	ARC 87-747 CAS3C B C M F V	20.000	-11.700	55.000	.000	28.1100
						32.3000
						11.7000
						10.000
						SCALE

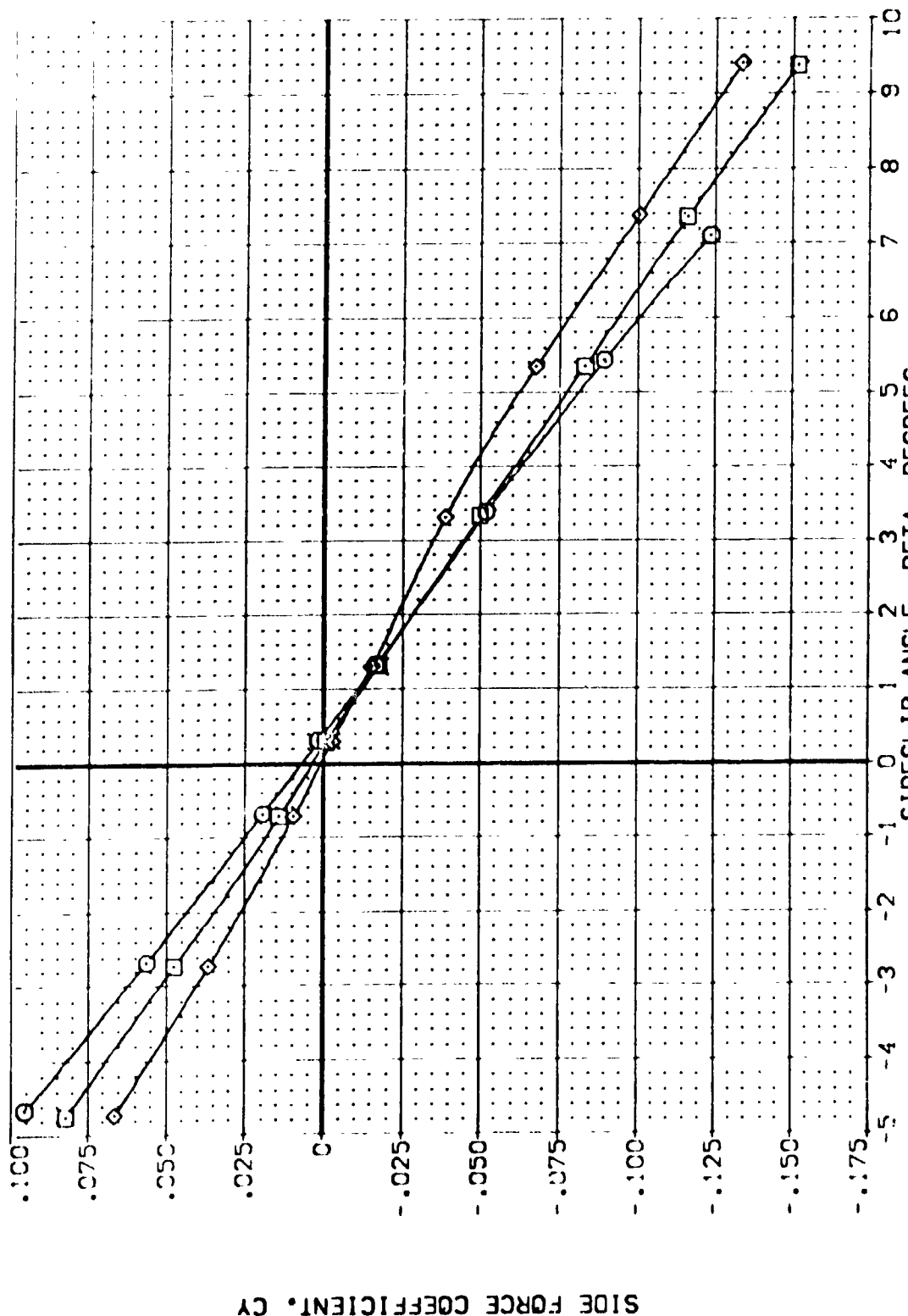


FIG. 11 LAI-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 1

(A)MAC = 2.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	SD FLAP	SPOBRN	ALL PPA	REFERENCE INFORMATION
AE 0121	ARC 87-747 BASIC B C M F V	0.000	11.700	55.000	0.000	SREF 2.4210 50.000
AE 0131	ARC 87-747 BASIC B C M F V	10.000	11.700	55.000	0.000	SREF 14.2442 50.000
AE 0141	ARC 87-747 BASIC B C M F V	20.000	11.700	55.000	0.000	SREF 28.1000 50.000
						WREF 32.3000 50.000
						WREF 11.2000 50.000
						SCALE 1.0000

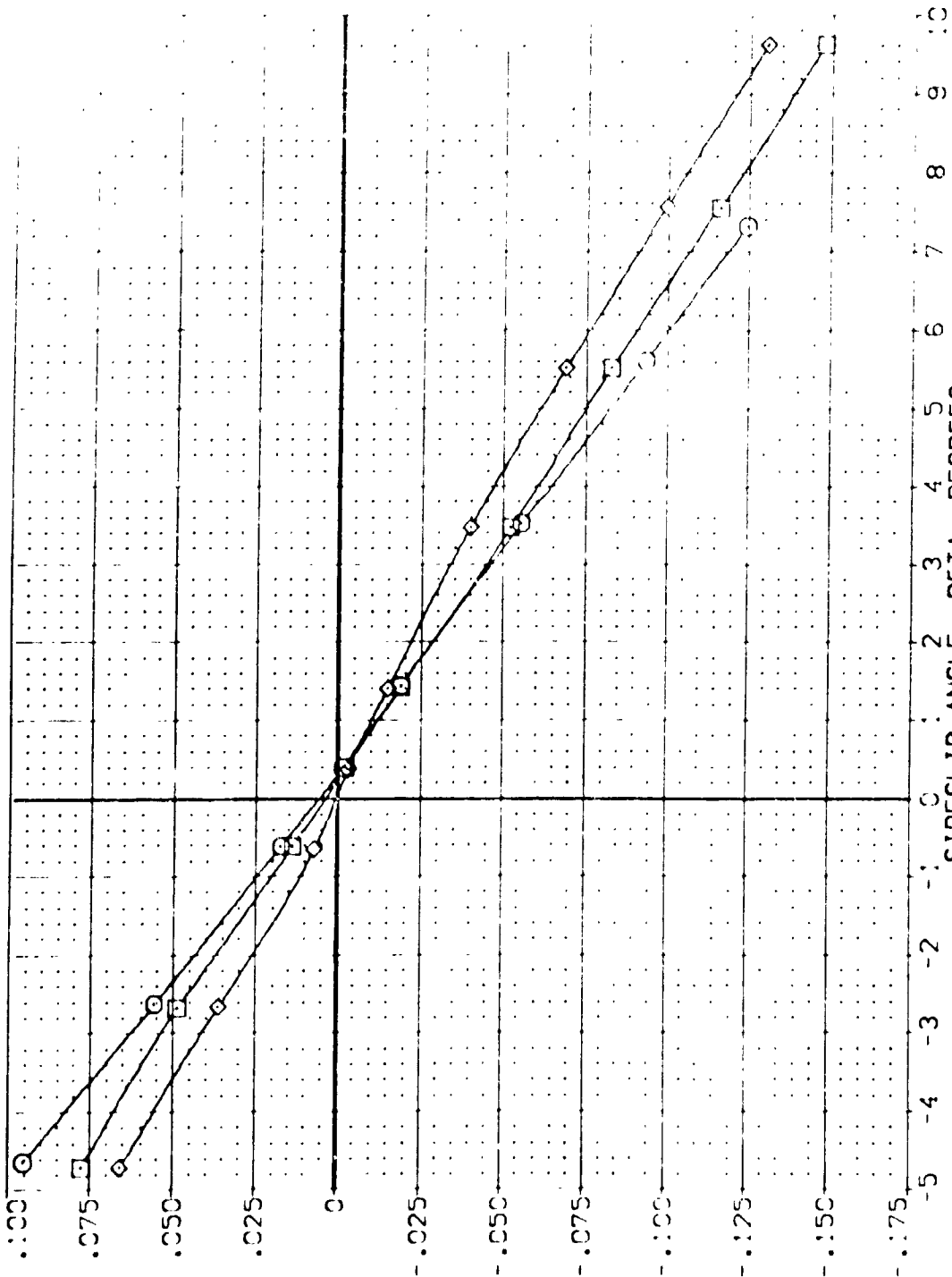


FIG. 11 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 1

(B)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON	RV/L	ALPHA	BDFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
{AELO:2}	ARC 87-747 GASC B C M F VI	V	RV/L	.000	-11.700	55.000	.000	SREF 2.4210 SQ.FT.
{AELO:3}	ARC 87-747 GASC B C M F VI	V	RV/L	10.000	-11.700	55.000	.000	LREF 14.2440
{AELO:4}	ARC 87-747 GASC B C M F VI	V	RV/L	20.000	-11.700	55.000	.000	BREF 28.1004
								XREF 32.3010
								YREF 11.2000
								ZREF 11.2000
								SCALE .0300

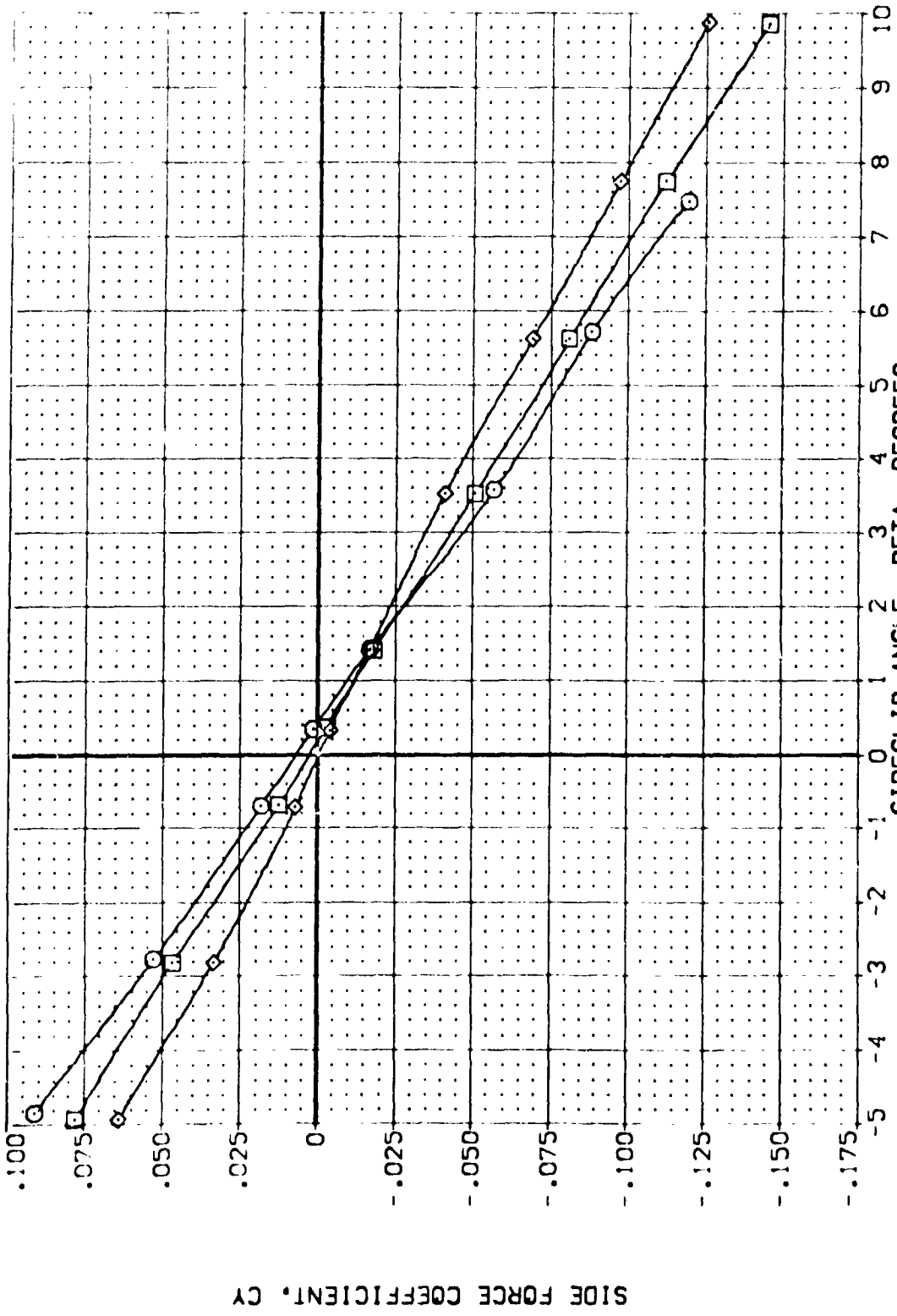


FIG. 11 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 1

(C) VACH = 3.50

ALPHA	BOFLAP	SPOBRK	AILIRON	REFERENCE INFORMATION	SG.FT.
0.000	-1.700	55.000	.000	SPEED	2.4200
10.000	-1.700	55.000	.000	TIME	14.2640
20.000	-1.700	55.000	.000	HEIGHT	28.5000
				WIND	35.0000
				TEMP	10.0000
				WIND	11.2500
				SCALE	1.0000

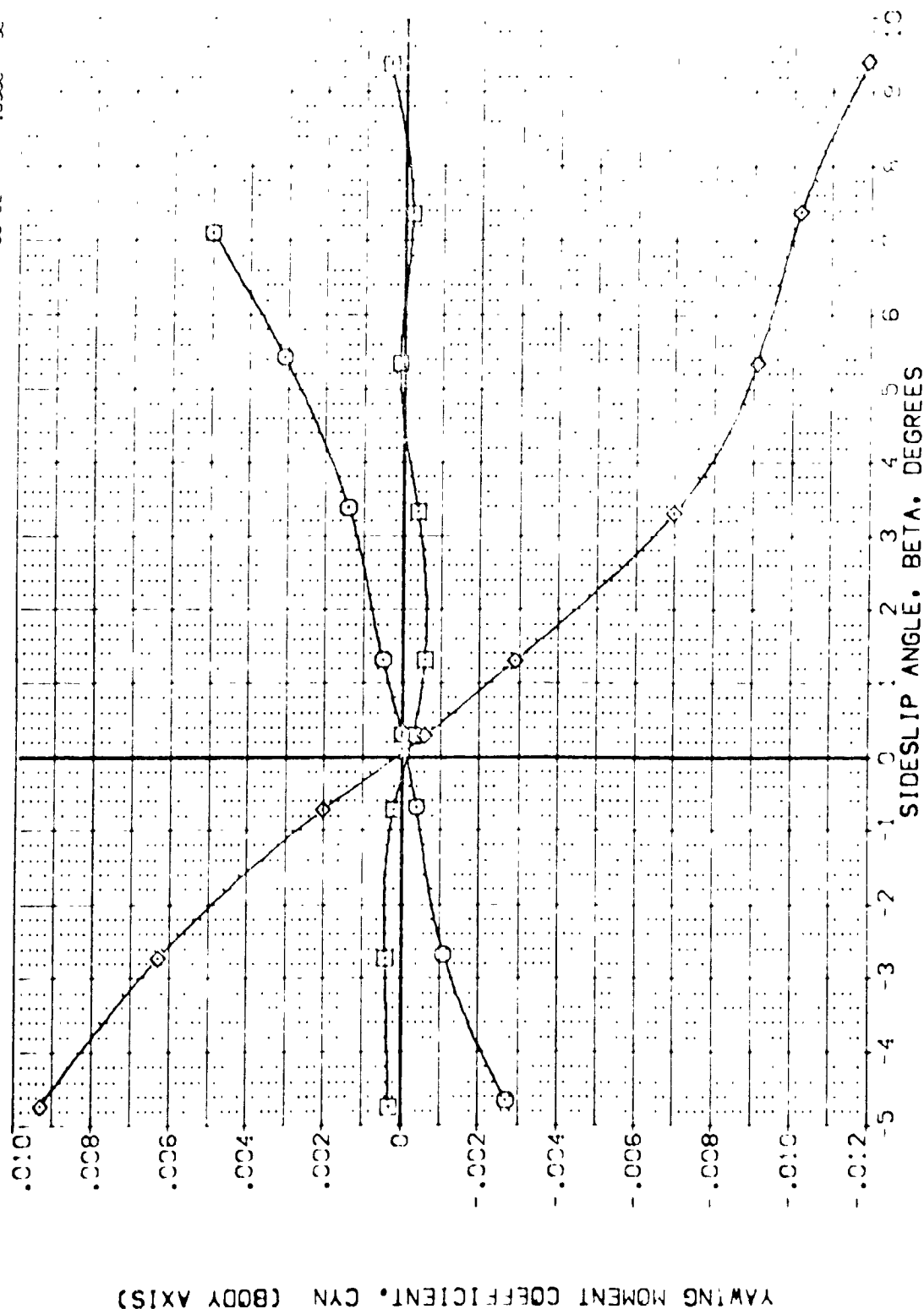


FIG. 11 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 1

$$\{A\} \backslash ACH = 2.50$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BOFLAP	SPOBRK	ALTRON	REFERENCE INFORMATION
(AL002)	ARC 87-747 CAS3C B C M F V1	.000	-11.700	55.000	.000	SREF 2.4210 SQ.FT.
(AL003)	ARC 87-747 CAS3C B C M F V1	10.000	-11.700	55.000	.000	LBREF 14.2440 IN.
(AL004)	ARC 87-747 CAS3C B C M F V1	20.000	-11.700	55.000	.000	BRREF 28.1004 IN.
						XMRO 32.3010 IN.
						YMRO 11.0000 IN.
						ZMRO 11.0000 IN.
						SCALE .0300

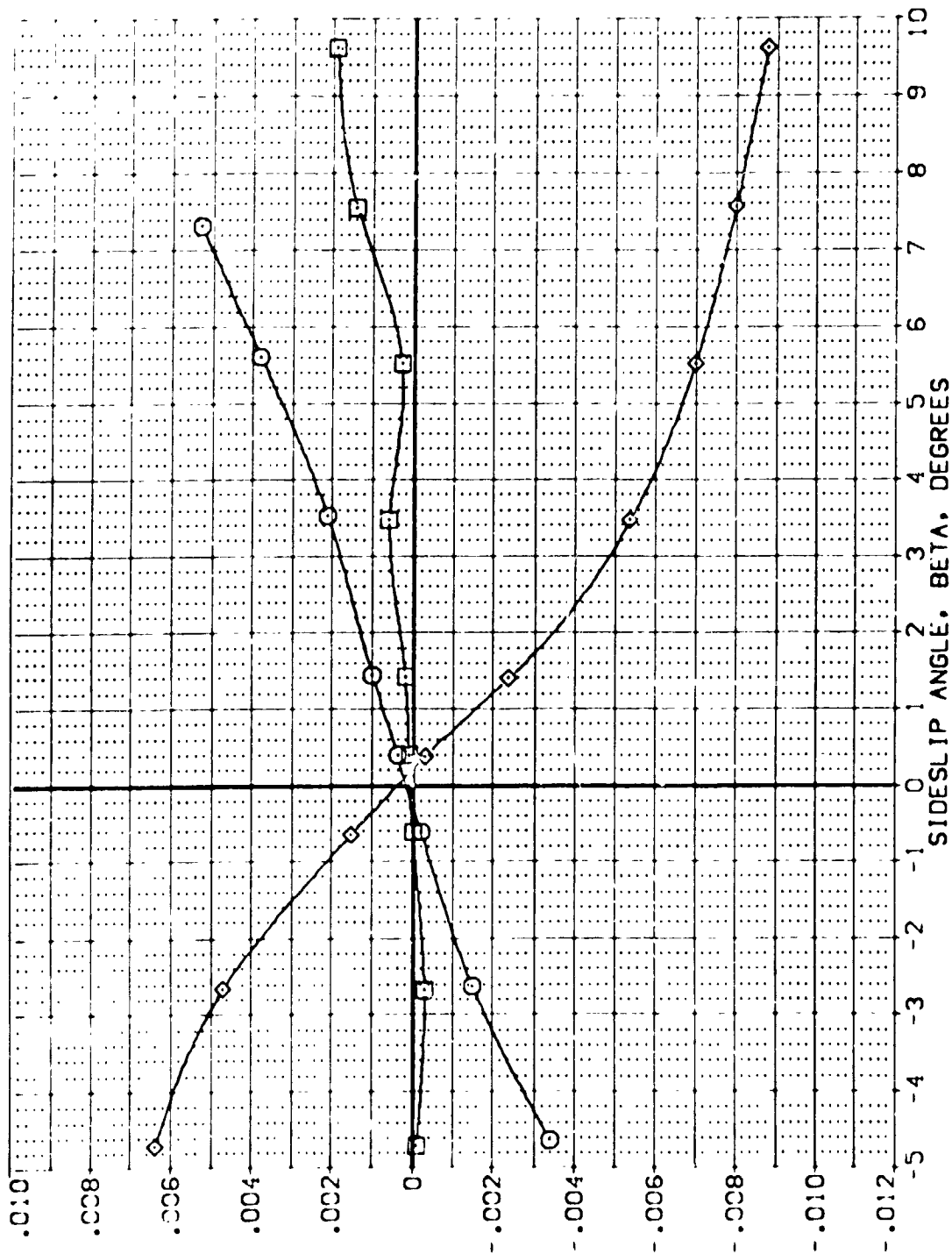


FIG. 11 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 1

(B)  $V_{ACH} = 3.00$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (AF 012) ABC 87-747 CAS3C B C M F V V  
 (AF 013) ABC 87-747 CAS3C B C M F V V  
 (AF 014) ABC 87-747 CAS3C B C M F V V

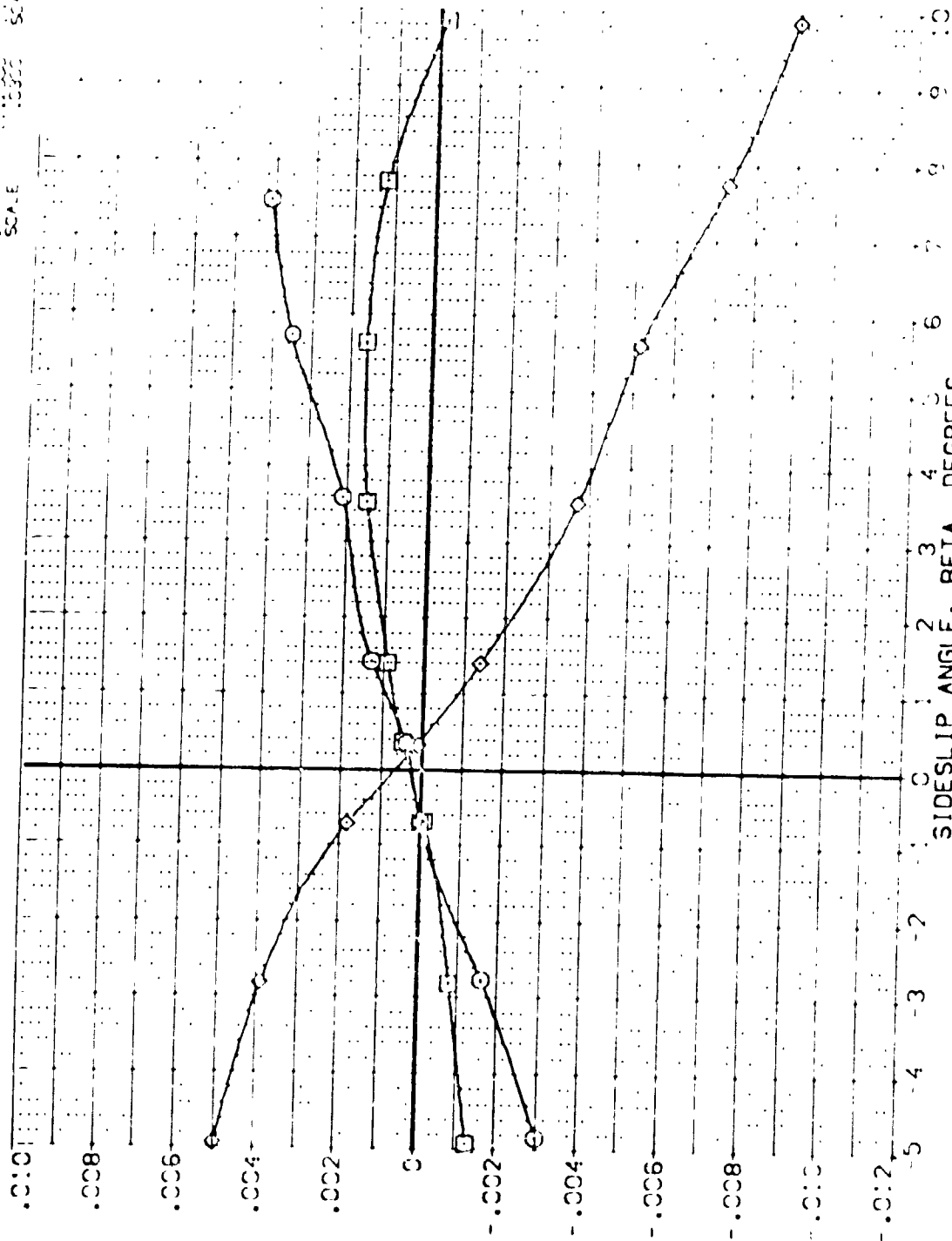
ALPHA 0.000  
 10.000  
 20.000

BOFLAP 1.700  
 1.700  
 1.700

SPOBPM 55.000  
 55.000  
 55.000

ALPHON 0.000  
 0.000  
 0.000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 SREF 14.1450  
 SREF 18.1000  
 SREF 22.3000  
 SREF 27.0000  
 SREF 32.0000  
 SREF 37.0000  
 SREF 42.0000  
 SREF 47.0000  
 SREF 52.0000  
 SREF 57.0000  
 SREF 62.0000  
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 SREF 87.0000  
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 SREF 967.0000  
 SREF 972.0000  
 SREF 977.0000  
 SREF 982.0000  
 SREF 987.0000  
 SREF 992.0000  
 SREF 997.0000



YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

FIG. 11 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 1

(C) 1964 - 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BDF LAP	SPOBRK	ALLRON	REFERENCE INFORMATION
AL0012	ARC 87-747 BASEC B C M F V	0.000	-11.700	55.000	.000	SPEE 2.42 0
AL0013	ARC 87-747 BASEC B C M F V	10.000	-11.700	55.000	.000	REF 14.2440
AL0014	ARC 87-747 BASEC B C M F V	20.000	-11.700	55.000	.000	REF 28.1004
						SCALE 11.0000
						SCALE 10.000

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

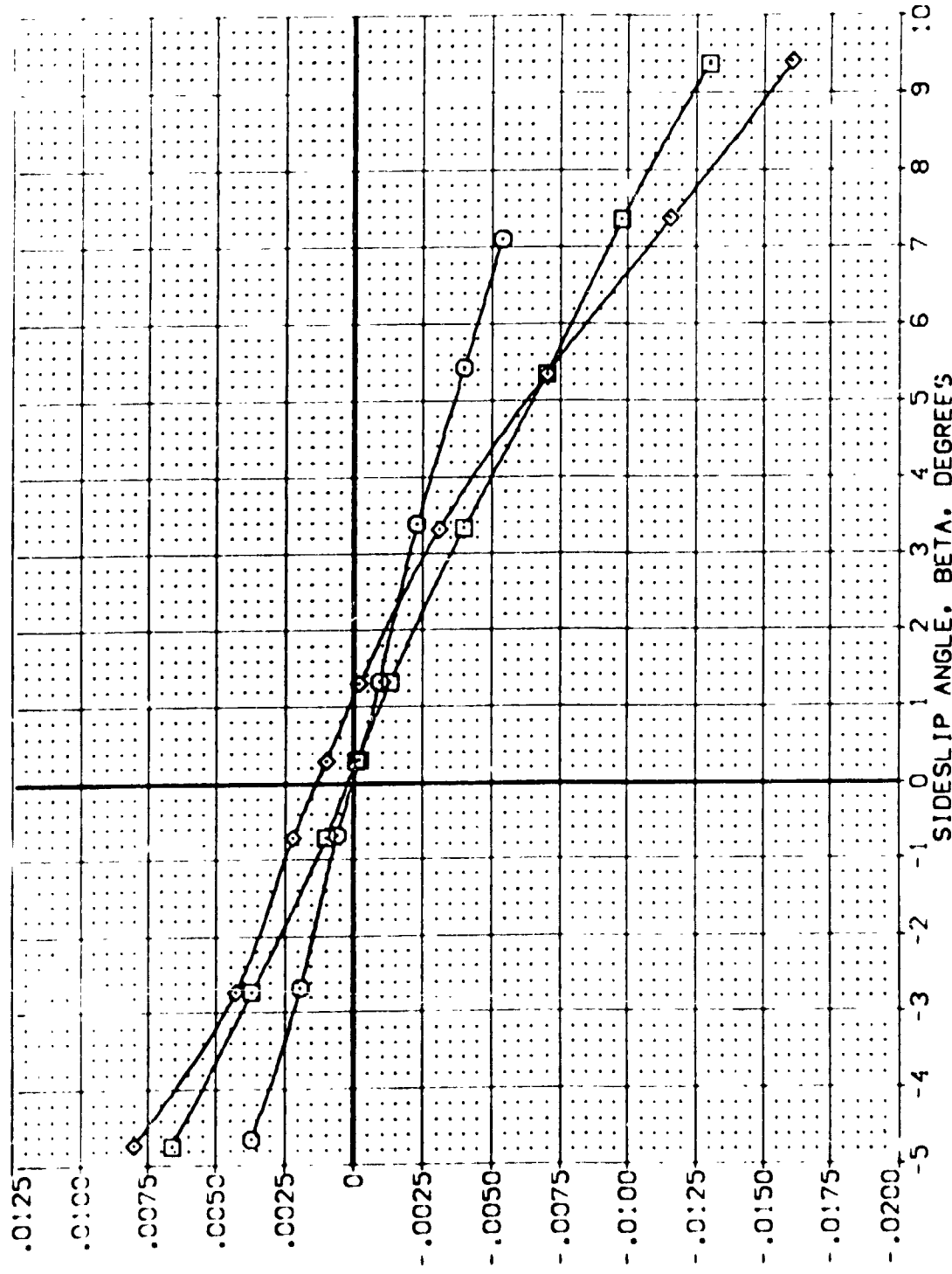


FIG. 11 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 1

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON- NO.	FN/L RN/L	ALPHA	BDF LAP	SPOBRK	AIRLON	REFERENCE INFORMATION
AELO12	ARC 87-747 CAS3C B C M F V	V	FN/L	.000	-11.700	55.000	.000	SREF 7.4710
AELO13	ARC 87-747 CAS3C B C M F V	V	FN/L	10.000	-11.700	55.000	.000	LBREF 14.2440
AELO14	ARC 87-747 CAS3C B C M F V	V	FN/L	20.000	-11.700	55.000	.000	LBREF 28.1004
								YREF 32.3000
								ZREF 11.0000
								SCALE 10.000

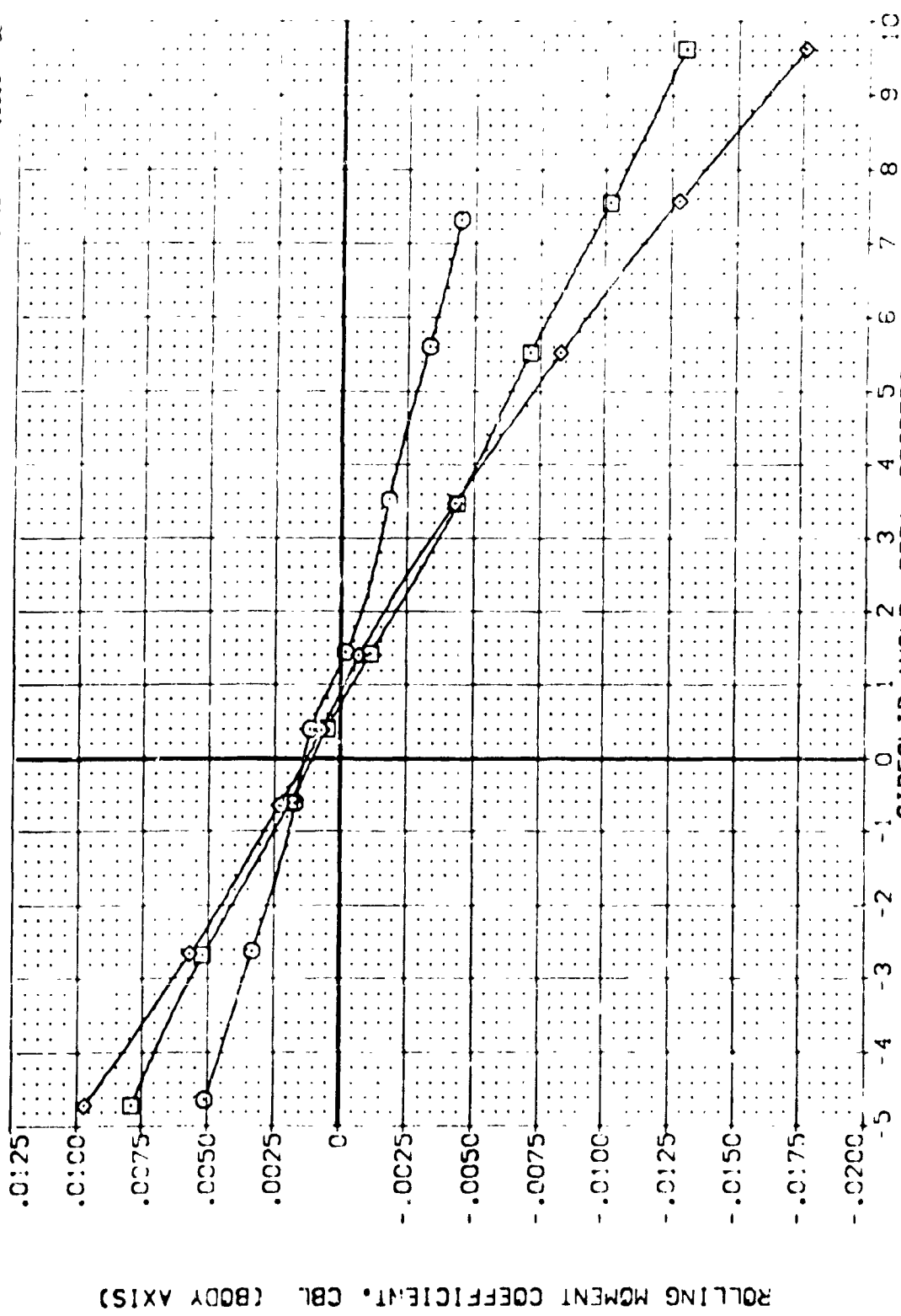


FIG. 11 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 1

(B)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BDF LAP	SPOBRK	ALLRON	REFERENCE INFORMATION
[AEL012]	ARC 87-747 QAS3C B C M F V	0.000	-11.700	55.000	.000	SREF 2.4210 SQ.FT.
[AEL013]	ARC 87-747 QAS3C B C M F V	10.000	-11.700	55.000	.000	LREF 14.2440
[AEL014]	ARC 87-747 QAS3C B C M F V	20.000	-11.700	55.000	.000	BREF 28.1004
						YREF 32.3010
						ZREF .0000
						ZMRP 11.7500
						SCALE .0300

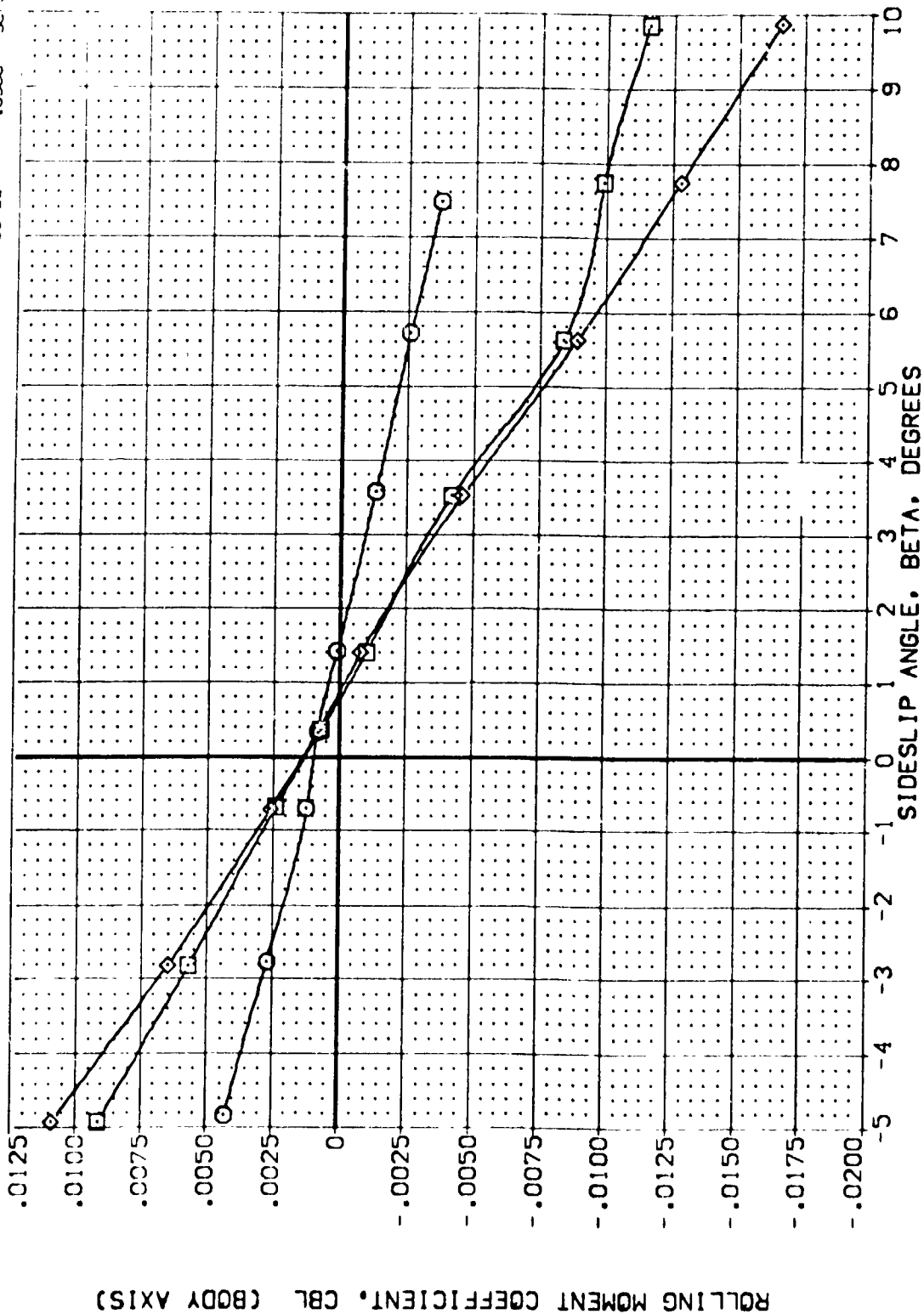


FIG. 11 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 1

(C)MACH = 3.50



ALPHA	BDF LAP	SPOBRY	ATLRON	REFERENCE INFORMATION	SCALE
0.000	-11.700	25.000	.000	SPEE	2.4210
10.000	-11.700	25.000	.000	REFE	1.7410
20.000	-11.700	25.000	.000	SPEE	28.004
				ALPHA	3.0000
				ZAPR	0.0000
				ZAPR	11.2000
				SCALE	0.0000
				SCALE	0.0000

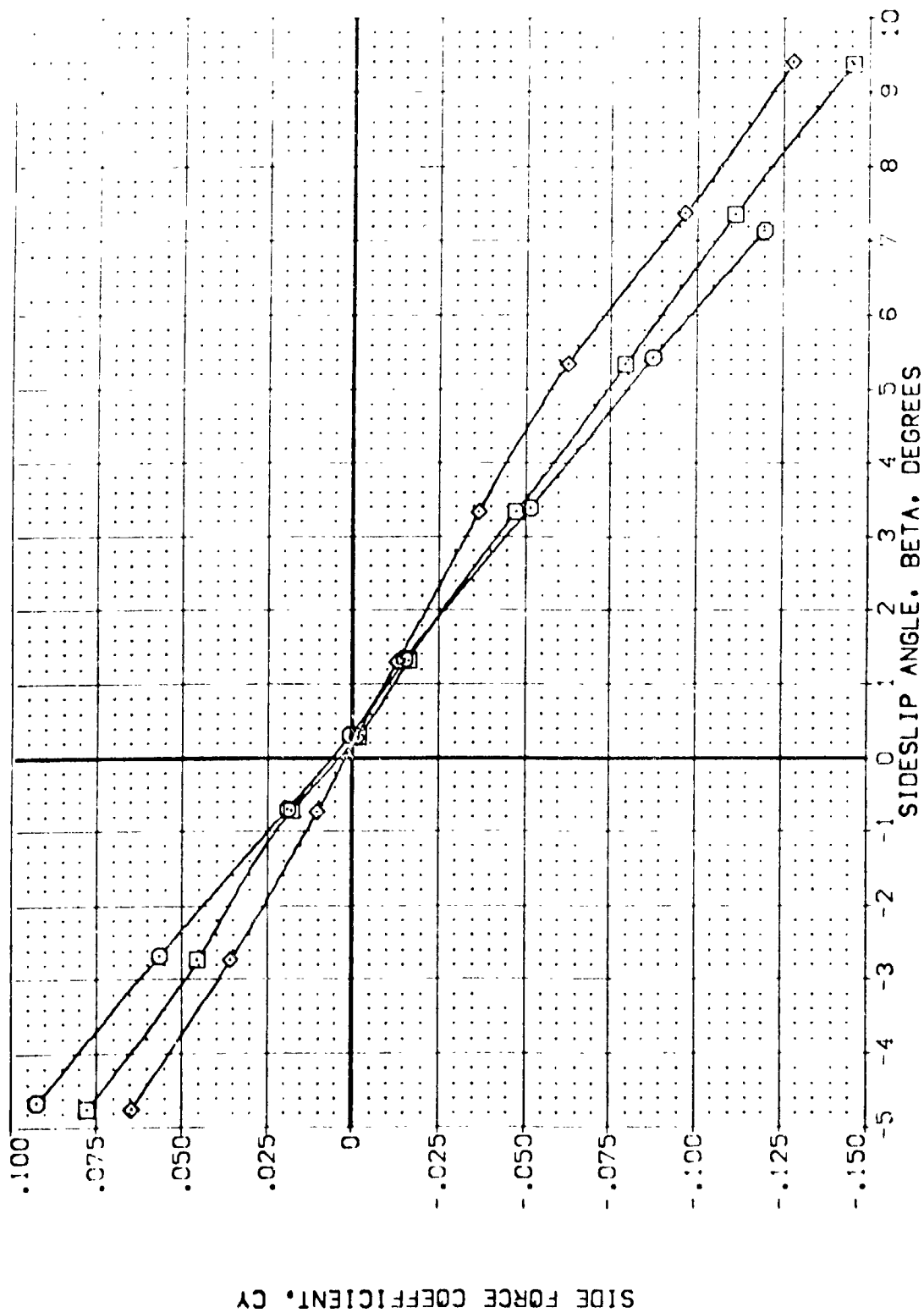


FIG. 12 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 2

$$[\text{A}]_0 \approx [\text{A}]_I = 2.50$$

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA	BDF LAP	SPODBK	AIRLON	REFERENCE	UNIFORMATION
(AEL025)	□	ARC 87-747	DA53C B C M F V	.000	-11.700	25.000	.000	SREF	2.4210
(AEL026)	□	ARC 87-747	DA53C B C M F V	10.000	-11.700	25.000	.000	LREF	14.2440
(AEL027)	◇	ARC 87-747	DA53C B C M F V	20.000	-11.700	25.000	.000	BREF	28.1004
								YREF	32.3000
								ZREF	11.2500
								SCALE	.0300

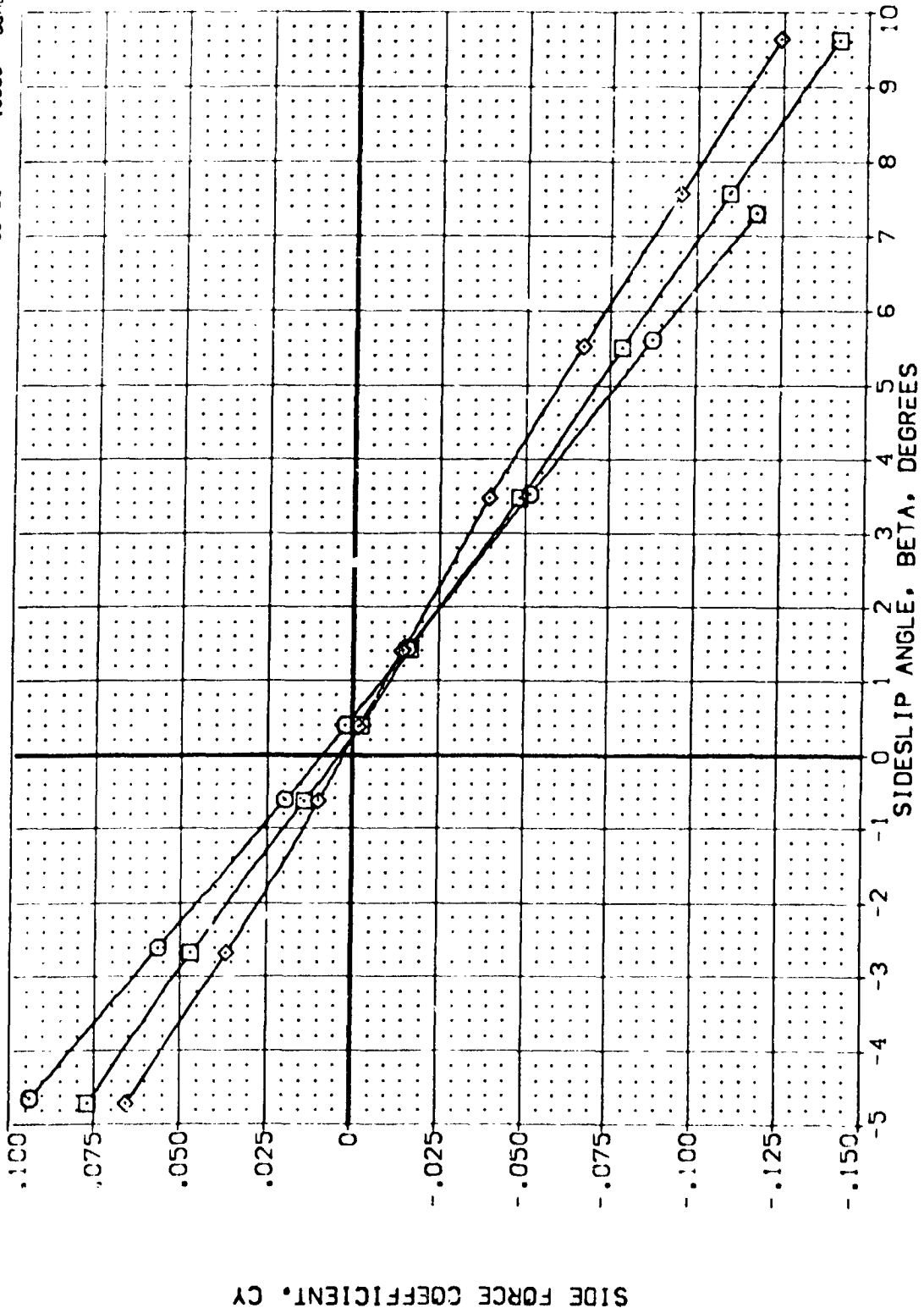


FIG. 12 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 2

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BDF LAP	SPOBCK	ALL FOR	REFERENCE INFORMATION
AE-075	ARC 87-747 CASSC B C M F V	0.000	11.700	25.000	0.000	SPEED 2.4210
AE-076	ARC 87-747 CASSC B C M F V	10.000	11.700	25.000	0.000	REF 14.2440
AE-077	ARC 87-747 CASSC B C M F V	20.000	11.700	25.000	0.000	REF 28.1000
						REF 32.3000
						REF 11.2400
						REF 10.2000
						SCALE

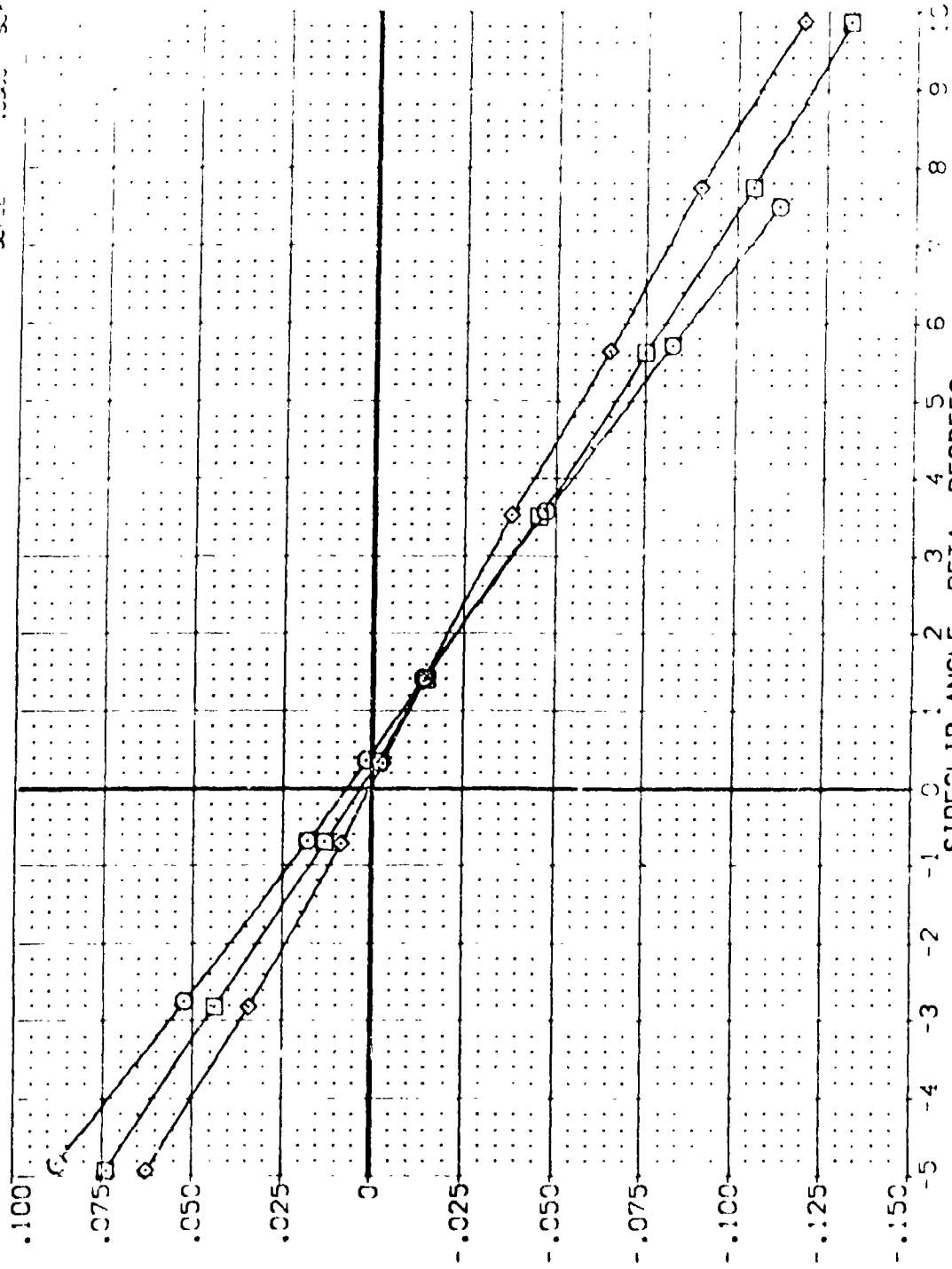


FIG. 12 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 2

CCVAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BOFLAP	SPOBRK	ATLRON	REFERENCE INFORMATION
[AE-025]	ARC 87-747 GAS3C B C M F V	.000	-11.700	25.000	.000	SREF 2.4210 SQ.FT.
[AE-026]	ARC 87-747 GAS3C B C M F V	10.000	-11.700	25.000	.000	LREF 14.2440
[AE-027]	ARC 87-747 GAS3C B C M F V	20.000	-11.700	25.000	.000	BREF 28.1094
						XREF 37.3010
						YREF .0000
						ZREF .0000
						SCALE 11.0300
						SCALE

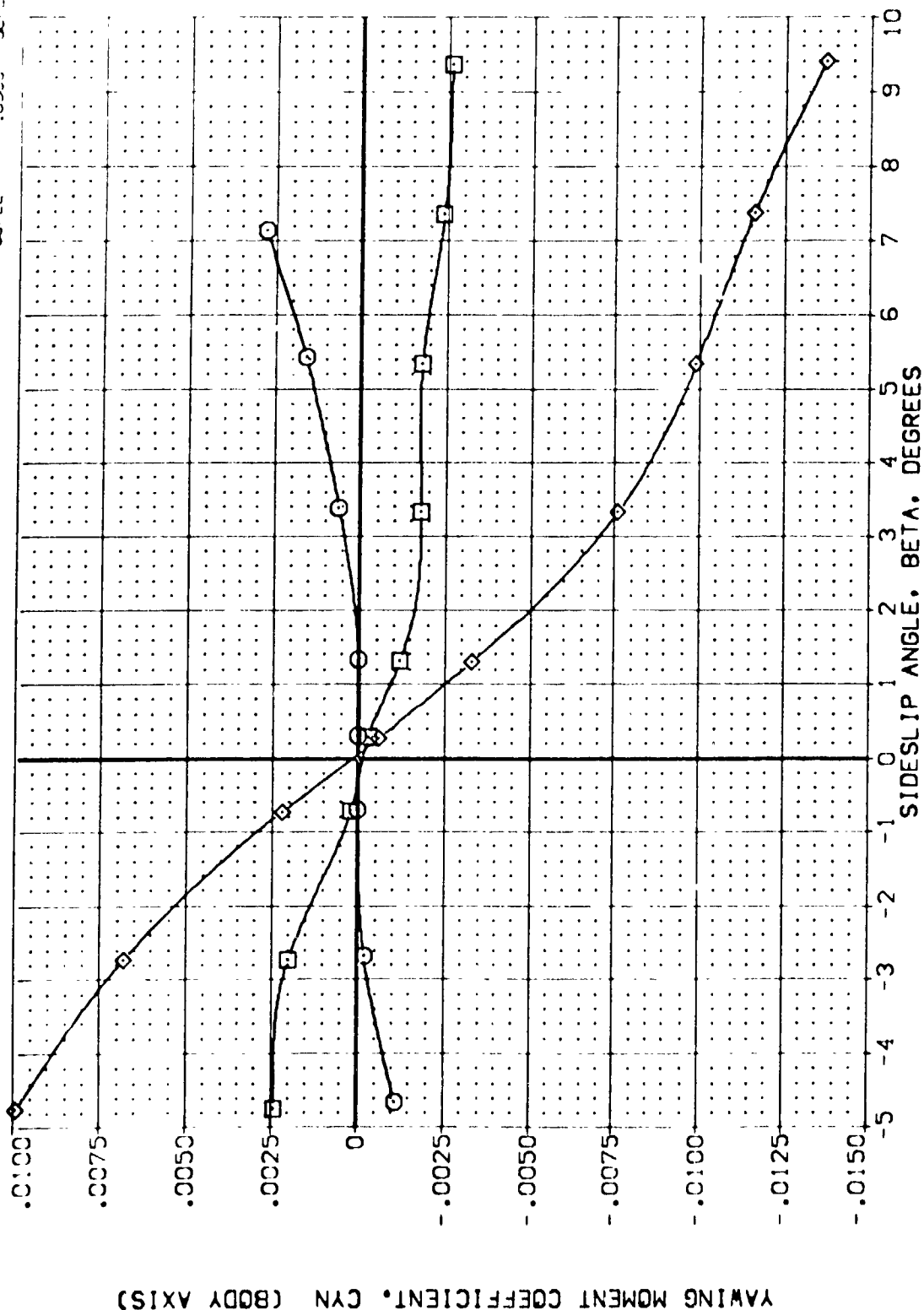


FIG. 12 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 2

(A) VACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BDELAP	SPOBRK	AILRON	REFERENCE INFORMATION
ARC 87-747	BASIC B C H F VI V	10.000	11.700	25.000	.000	SREF 2.4210 SC.FT.
ARC 87-747	BASIC B C H F VI V	20.000	11.700	25.000	.000	REF 14.2440
ARC 87-747	BASIC B C H F VI V	20.000	11.700	25.000	.000	BREF 78.1000
ARC 87-747	BASIC B C H F VI V	20.000	11.700	25.000	.000	YREF 32.9010
ARC 87-747	BASIC B C H F VI V	20.000	11.700	25.000	.000	ZREF 11.2500
ARC 87-747	BASIC B C H F VI V	20.000	11.700	25.000	.000	SCALE 1.0000

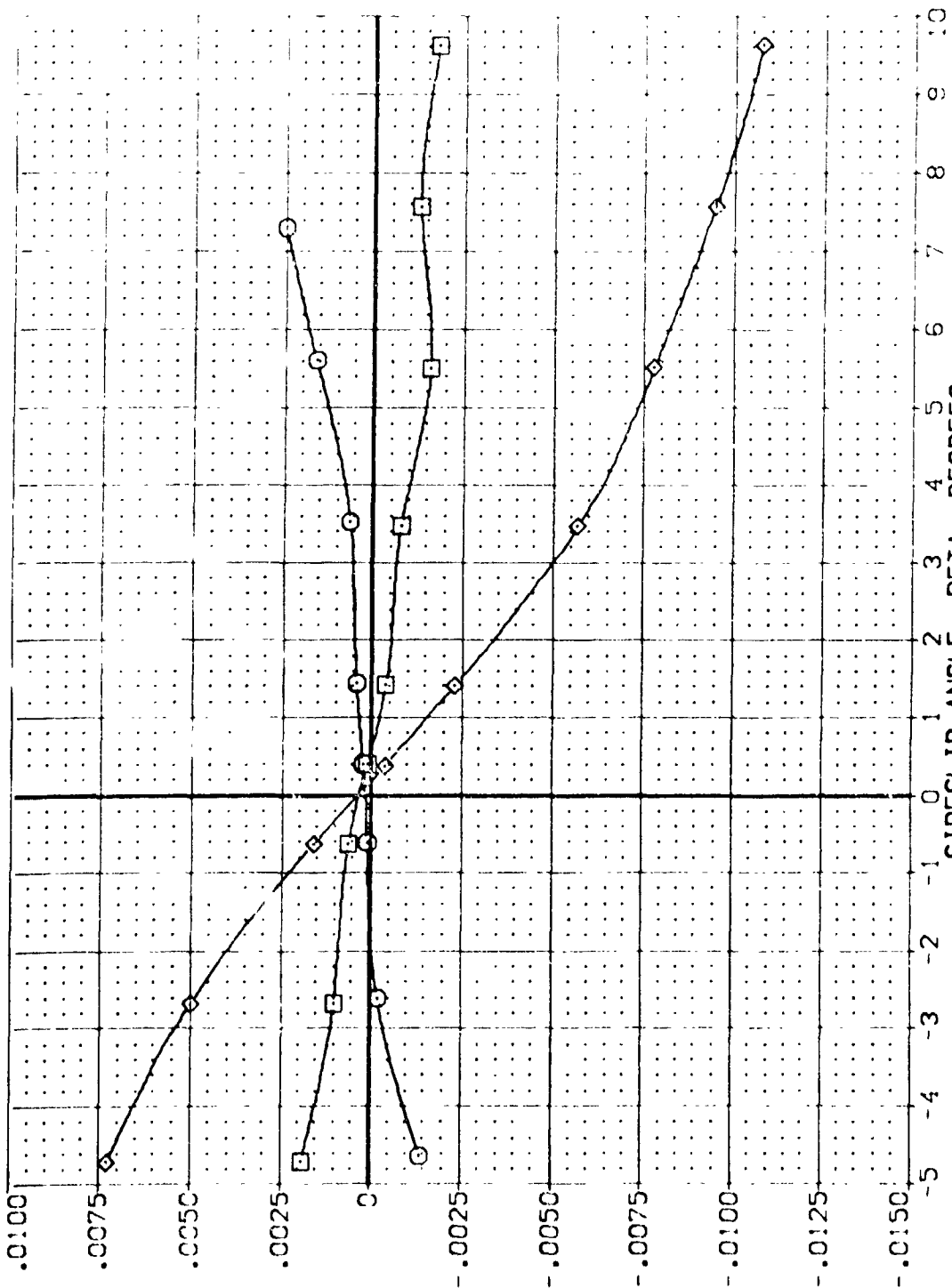


FIG. 12 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 2

(B) MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BOFLAP	SPOBRK	ALLRON	REFERENCE INFORMATION
AE-0251	APC 87-747 CAS3C B C M F VI	.000	-11.700	25.000	.000	SRF 2.4210 SCLET.
AE-0252	APC 87-747 CAS3C B C M F VI	10.000	-11.700	25.000	.000	SRF 14.2440
AE-0253	APC 87-747 CAS3C B C M F VI	20.000	-11.700	25.000	.000	SRF 28.1004
						YREF 30.3010
						YREF 11.2500
						YREF 11.2500
						SCALE 0.000

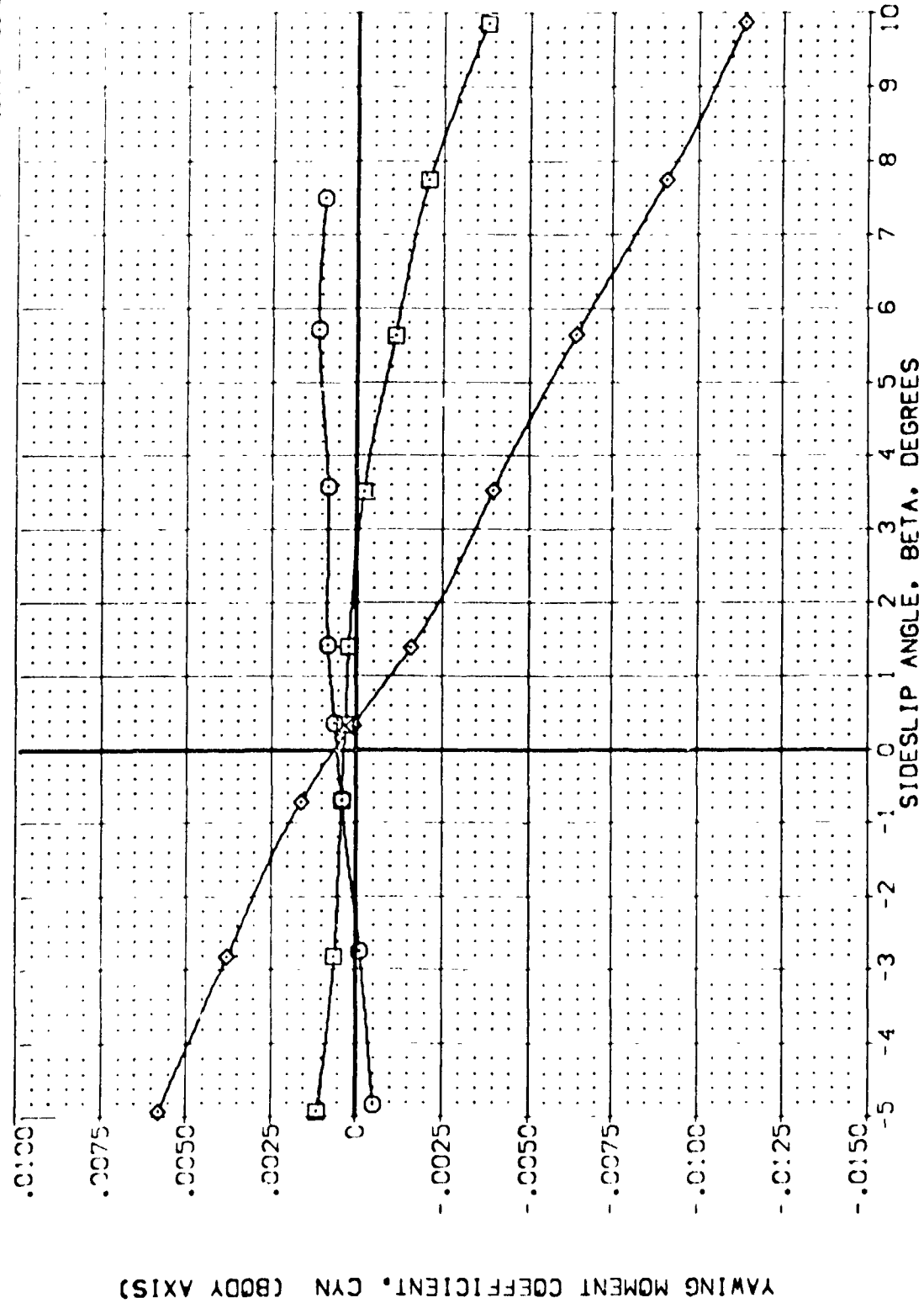


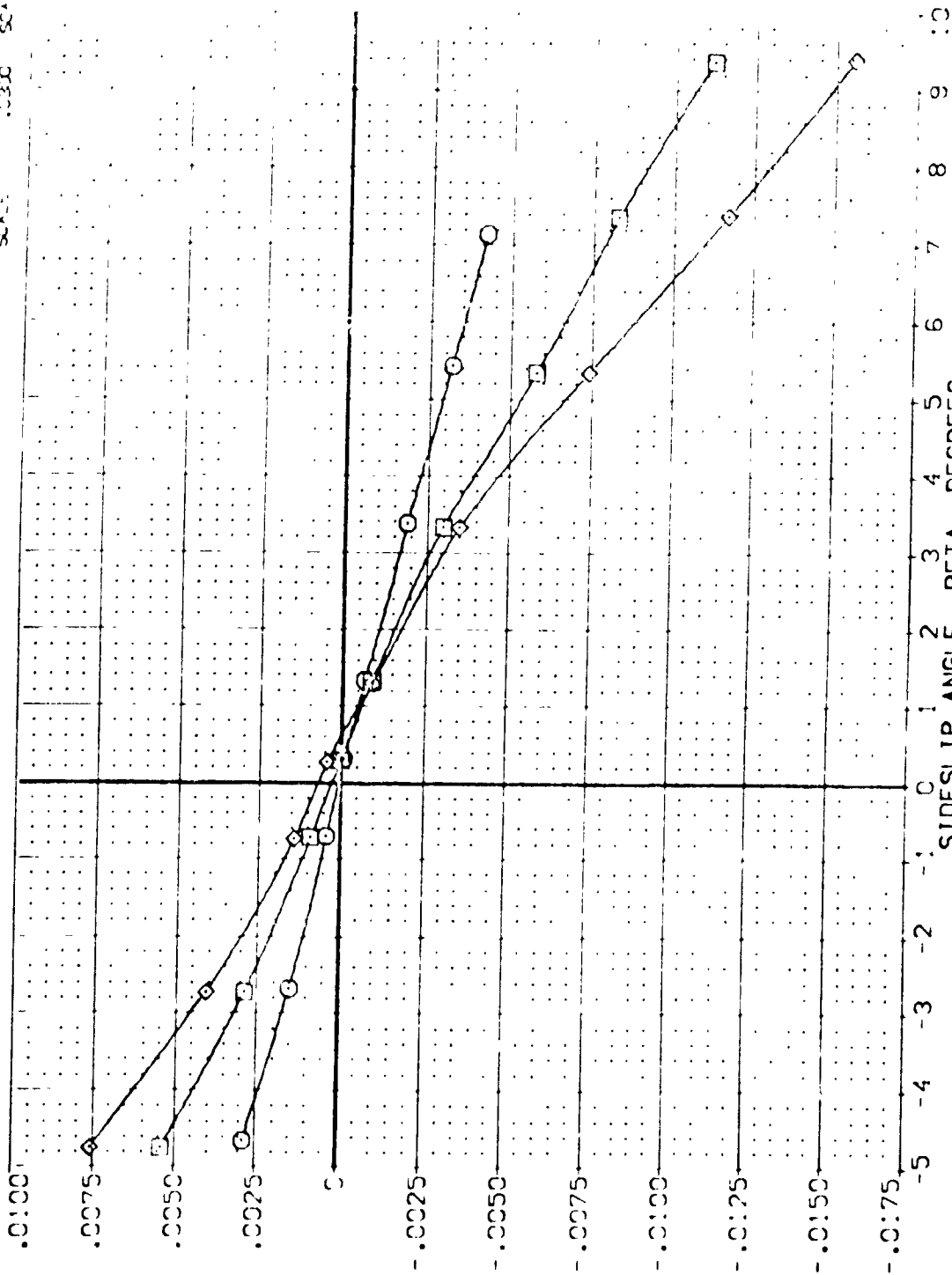
FIG. 12 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 2

COMACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (AEL025) APC 87-747 OASIC B C M F V: V NOM: RNVL  
 (AEL026) APC 87-747 OASIC B C M F V: V NOM: RNVL  
 (AEL027) APC 87-747 OASIC B C M F V: V NOM: RNVL

ALPHA BOFLAP SPOBRK AIRRON  
 .000 -11.700 25.000 .000  
 10.000 -11.700 25.000 .000  
 20.000 -11.700 25.000 .000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.2440  
 BREF 28.1034  
 YMRD 32.3010  
 YMRD .0000  
 YMRD .0000  
 SCALE 11.0300



ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

FIG. 12 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 2

(A) VACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BOLAP	SPOBRK	AL. PON	REFERENCE INFORMATION
AE-025	ARC 87-747 CAS3C B C M F V	.000	-11.700	25.000	.000	SPEF 2.4210 SQ.FT.
AE-026	ARC 87-747 CAS3C B C M F V	10.000	-11.700	25.000	.000	LOPE 14.2440
AE-027	ARC 87-747 CAS3C B C M F V	20.000	-11.700	25.000	.000	SPREF 28.1004
						YURD 32.3010
						TURD 1.0000
						ZURD 11.2500
						SCALE 1.0000

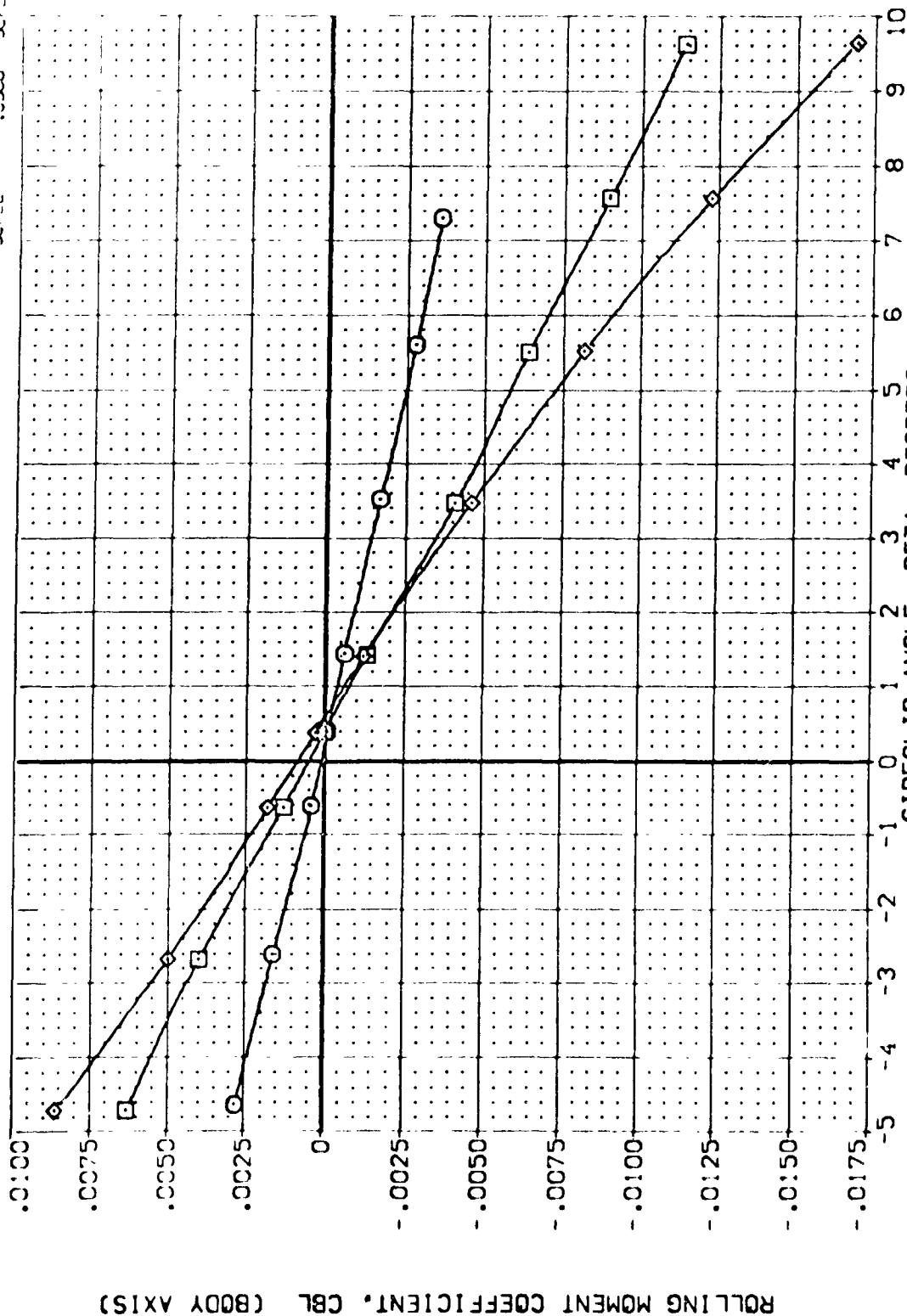


FIG. 12 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 2

(B) VACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BOFLAP	SPOBRK	ALLROD	REFERENCE INFORMATION
[AEL025]	ARC 87-747 D453C B C M F V1 V	.000	-.700	25.000	.000	SARE 2.4210 SCALE
[AEL026]	ARC 87-747 D453C B C M F V1 V	10.000	-.700	25.000	.000	SARE 14.2440 SCALE
[AEL027]	ARC 87-747 D453C B C M F V1 V	20.000	-.700	25.000	.000	SARE 28.1000 SCALE
						SARE 30.3000 SCALE
						SARE 20.0000 SCALE
						SARE 11.2000 SCALE
						SARE 10.3000 SCALE

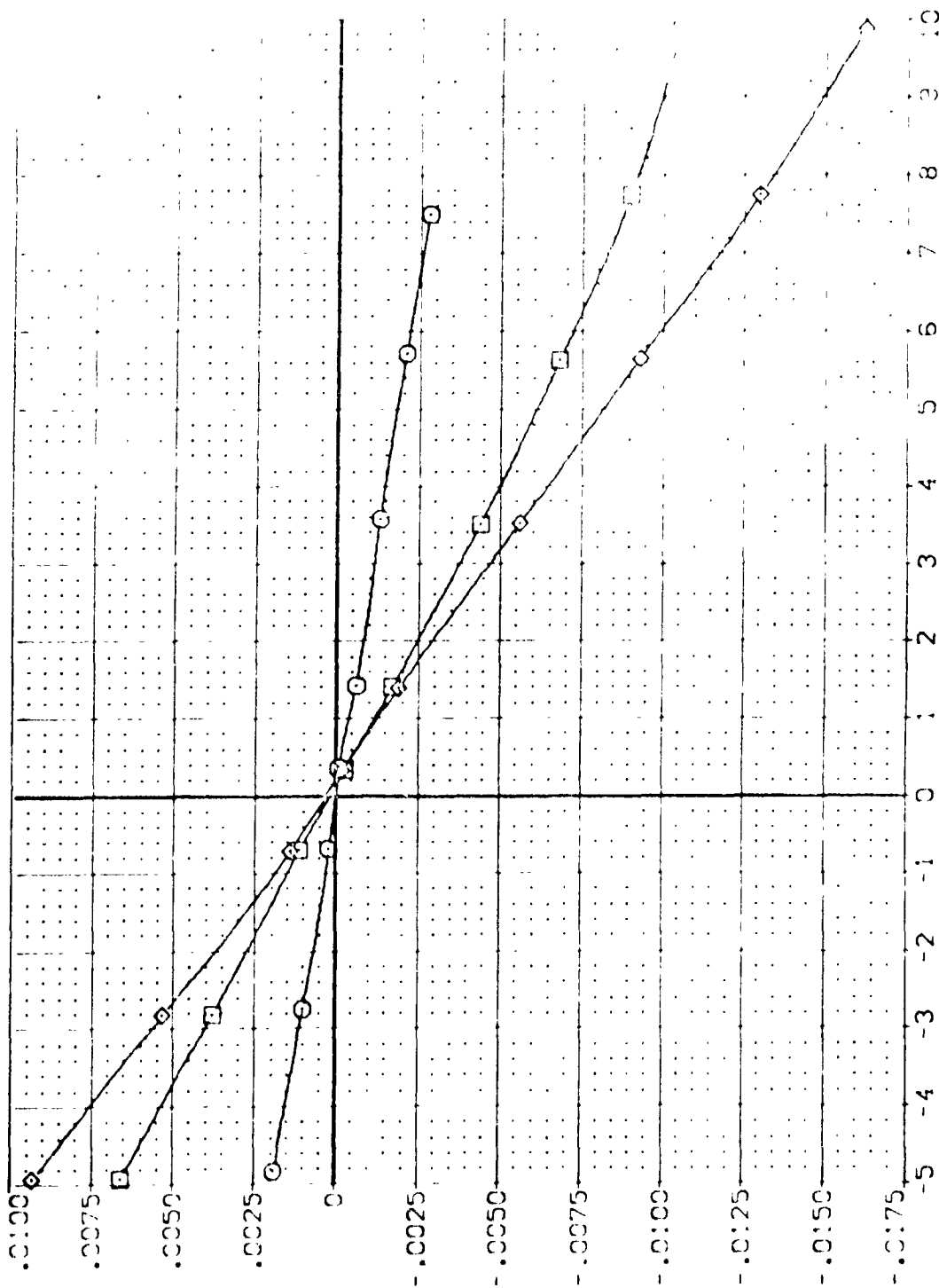


FIG. 12 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 2  
 (C) VAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BDF LAP	SPOBOK	AIRLON	REFERENCE INFORMATION
AE-138	ARC 87-747 CAS3C B C M F VI V	19.000	-11.700	85.000	.000	SREF 2.4210
AE-140	ARC 87-747 CAS3C B C M F VI V	19.000	-11.700	85.000	.000	LREF 14.2440
AE-141	ARC 87-747 CAS3C B C M F VI V	20.000	-11.700	85.000	.000	BREF 28.1000
						XREF 32.3000
						YREF 11.0000
						ZREF 11.0000
						SCALE .0300

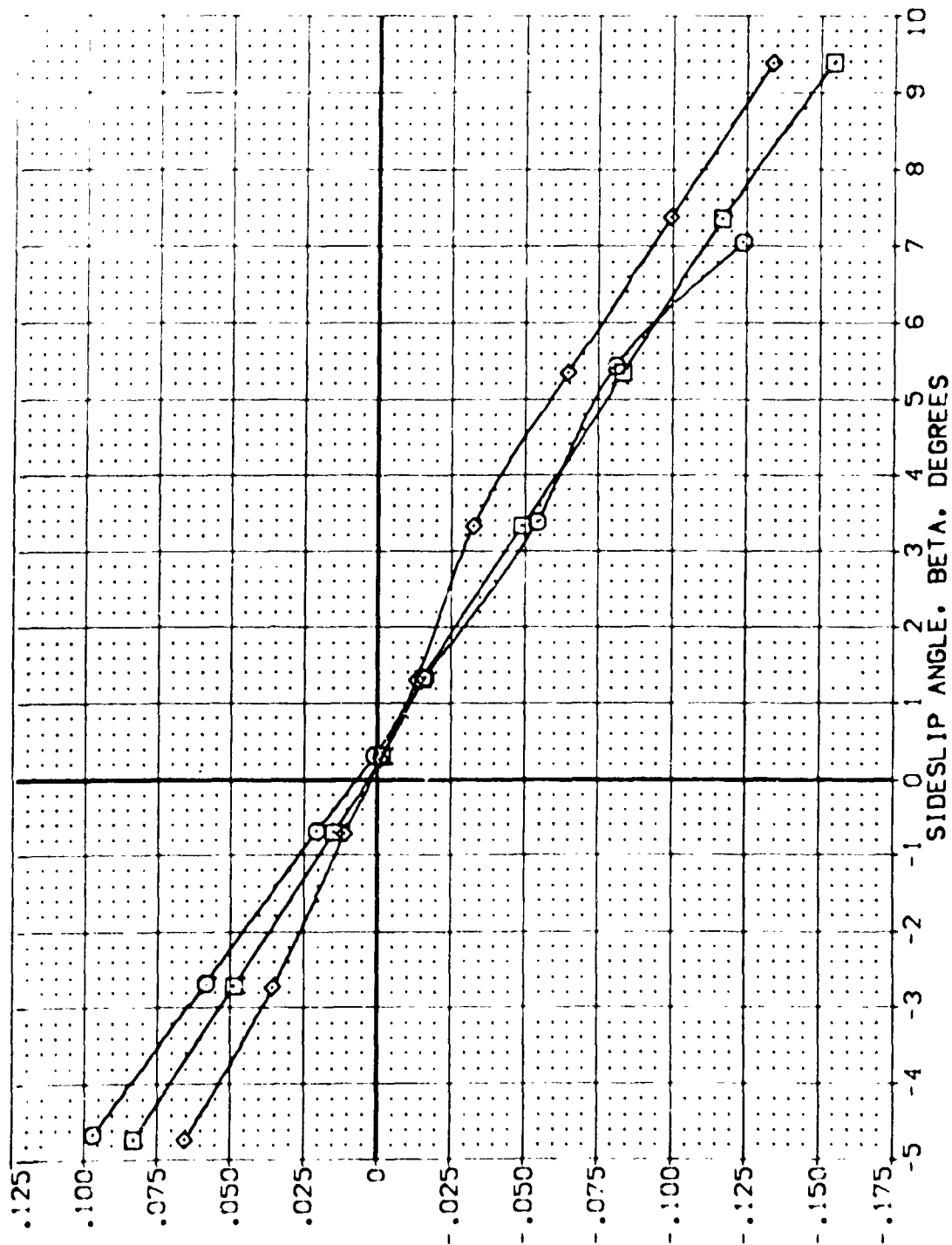


FIG. 13 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 3

(A) MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[AEL-39] □

[AEL-40] ◇

[AEL-41] ◇

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

ARC 87-747 2453C B C M F V

SIDE FORCE COEFFICIENT, CY

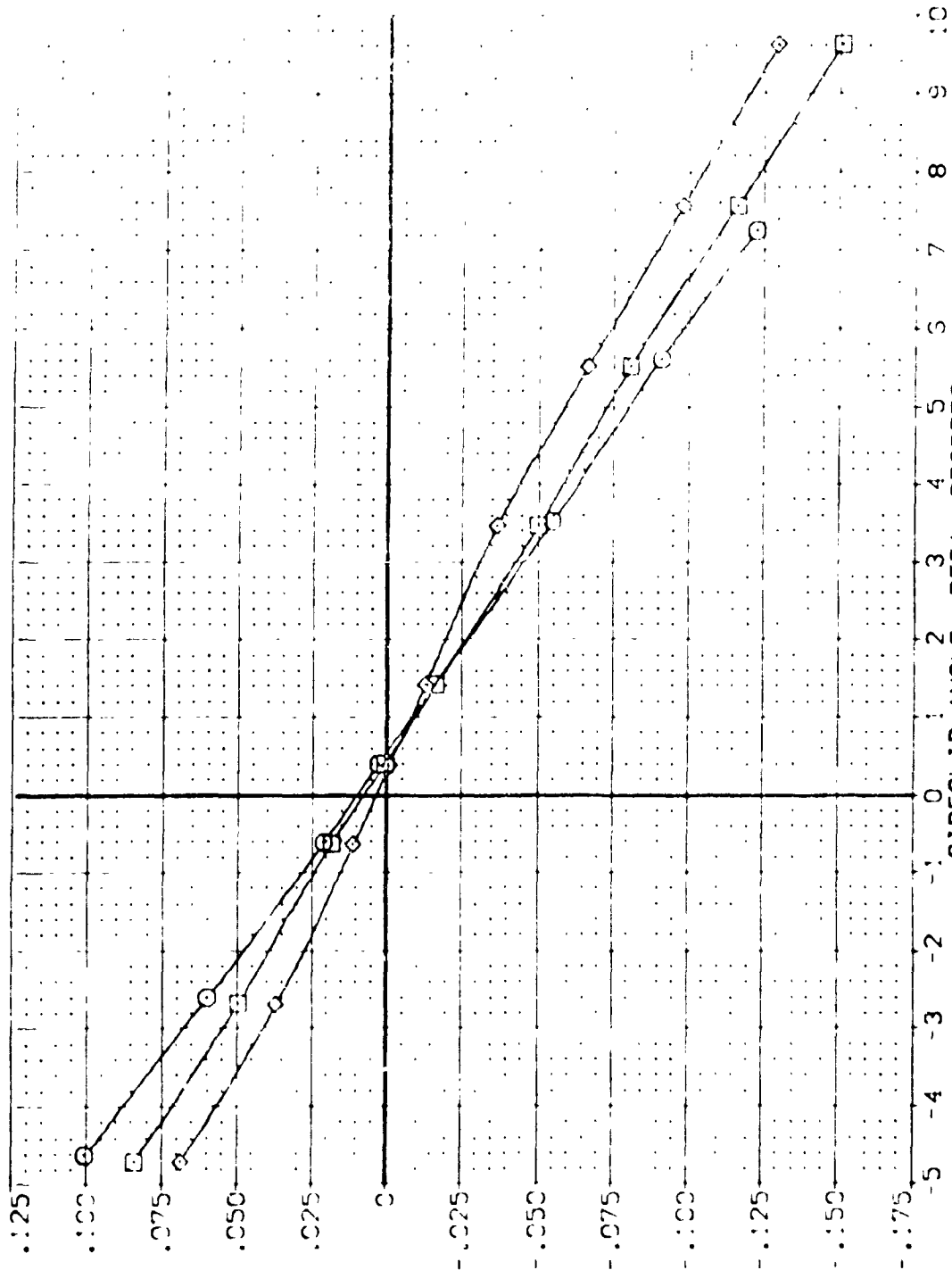


FIG. 13 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 3

(B)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
[AELA39]	ARC 87-747 CASIC B C M F V I V	.000	-11.700	85.000	.000	SREF 2.4210
[AELD40]	ARC 87-747 CASIC B C M F V I V	10.000	-11.700	85.000	.000	REF 14.2410
[AELD41]	ARC 87-747 CASIC B C M F V I V	20.000	-11.700	85.000	.000	REF 28.1004
						YREF 32.3010
						YREF .0000
						ZREF .0000
						SCALE 11.2500
						SCALE

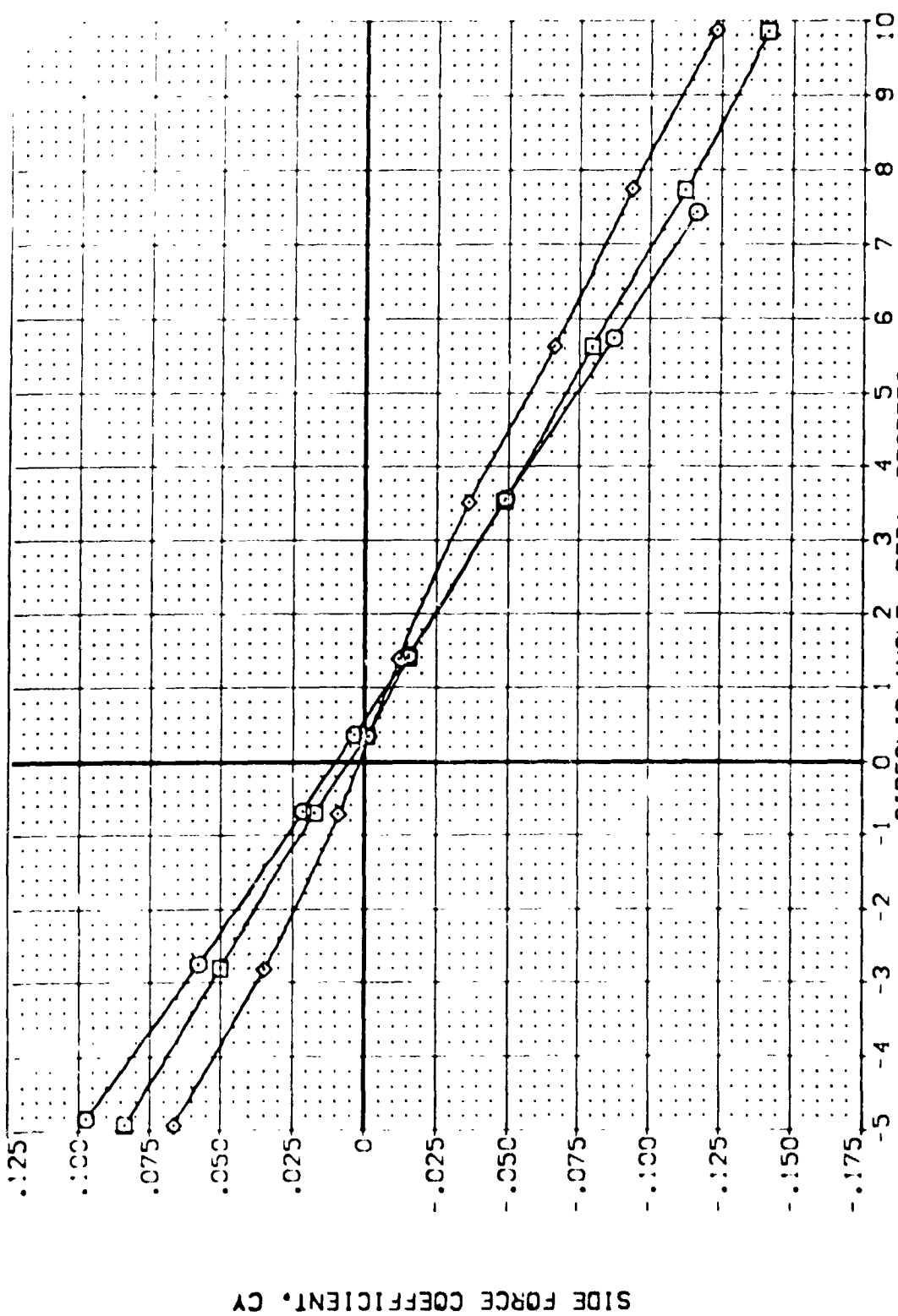


FIG. 13 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 3

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [AE-138] ARC 87-747 BASIC B C H F V V NO- RV/L  
 [AE-140] ARC 87-747 BASIC B C H F V V NO- RV/L  
 [AE-141] ARC 87-747 BASIC B C H F V V NO- RV/L

ALPHA .000 .000 .000  
 10.000 10.000 10.000  
 20.000 20.000 20.000

BOE LAP .700 .700 .700  
 .700 .700 .700  
 .700 .700 .700

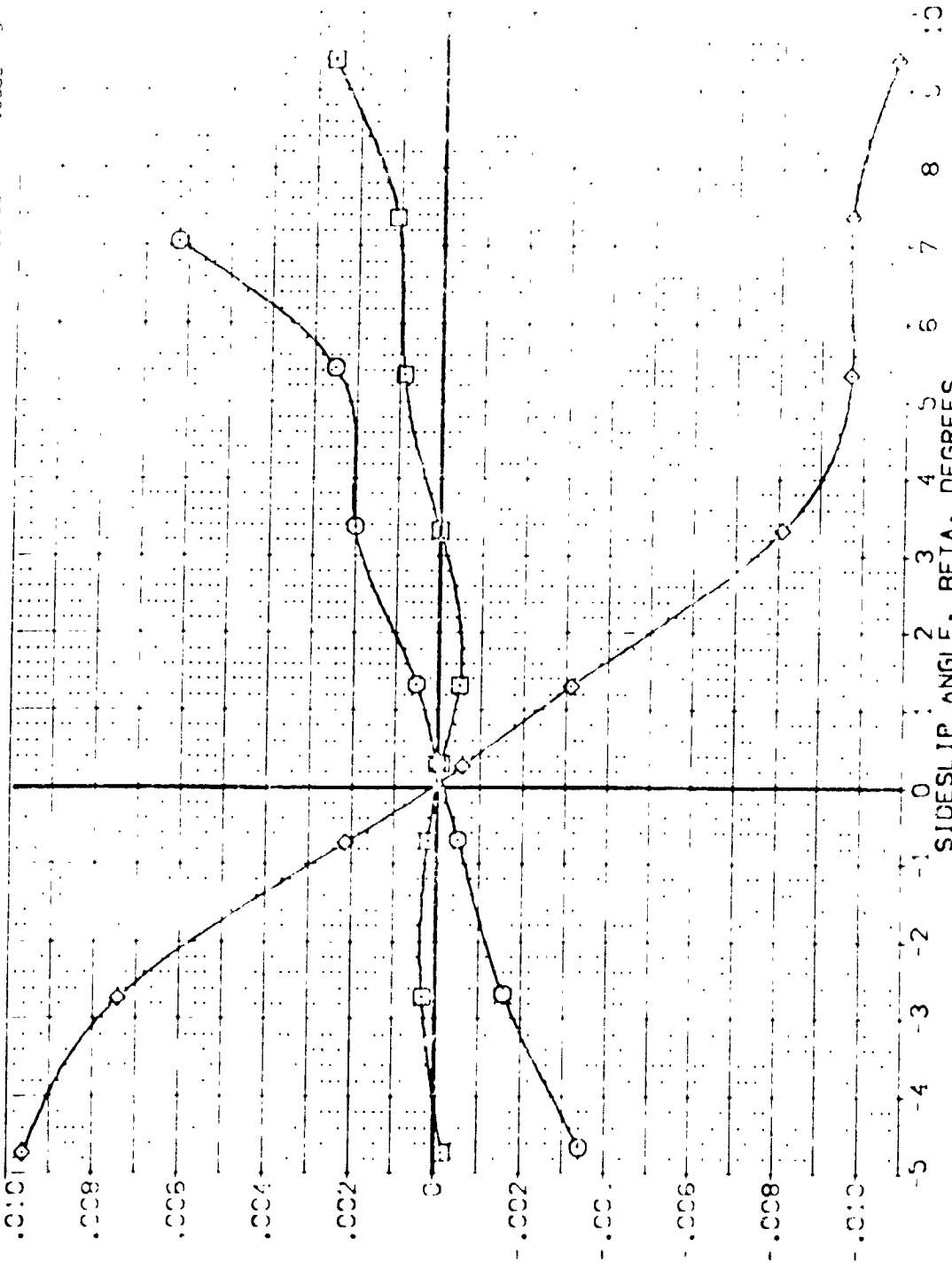
SPEED 85.000 85.000 85.000  
 85.000 85.000 85.000  
 85.000 85.000 85.000

ALPHA .000 .000 .000  
 10.000 10.000 10.000  
 20.000 20.000 20.000

BOE LAP .700 .700 .700  
 .700 .700 .700  
 .700 .700 .700

SPEED 85.000 85.000 85.000  
 85.000 85.000 85.000  
 85.000 85.000 85.000

REFERENCE INFORMATION  
 SWEE 2.4710 SQ.ET.  
 REF 11.2440  
 BPT 24.1000  
 X-900 30.3000  
 Y-900 11.2000  
 Z-900 11.2000  
 SCALE 11.2000



YAWING MOMENT COEFFICIENT, N (BODY AXIS)

FIG. 13 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 3

(A) MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BOFLAP	SPDRPK	AILRON	REFERENCE INFORMATION
{AELA39}	ARC 87-747 OAS3C B C M F V1	.000	-11.700	85.000	.000	SREF 2.4210 SQ.FT.
{AELD40}	ARC 87-747 OAS3C B C M F V1	10.000	-11.700	85.000	.000	LREF 14.7440
{AELD41}	ARC 87-747 OAS3C B C M F V1	20.000	-11.700	85.000	.000	BREF 28.1004
						XMRP 32.3010
						YMRP .0000
						ZMRP .0000
						SCALE 11.2500
						SCALE .0300

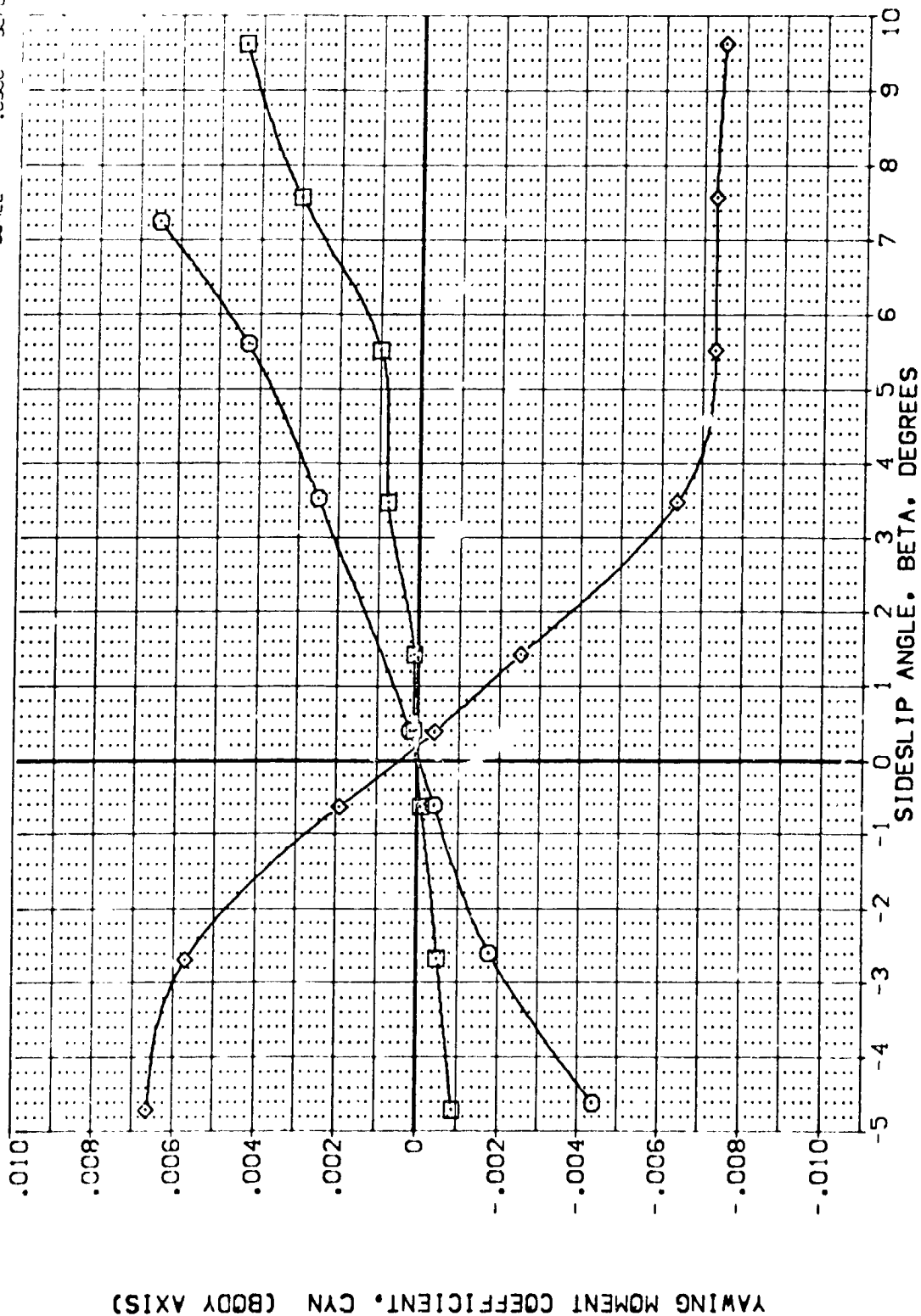


FIG. 13 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 3

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AE-LA-39)  
(AE-LA-40)  
(AE-LA-41)

ARC 87-747 CAS3C B C M F V  
ARC 87-747 CAS3C B C M F V  
ARC 87-747 CAS3C B C M F V

NOM: RV/L  
NOM: RV/L  
NOM: RV/L

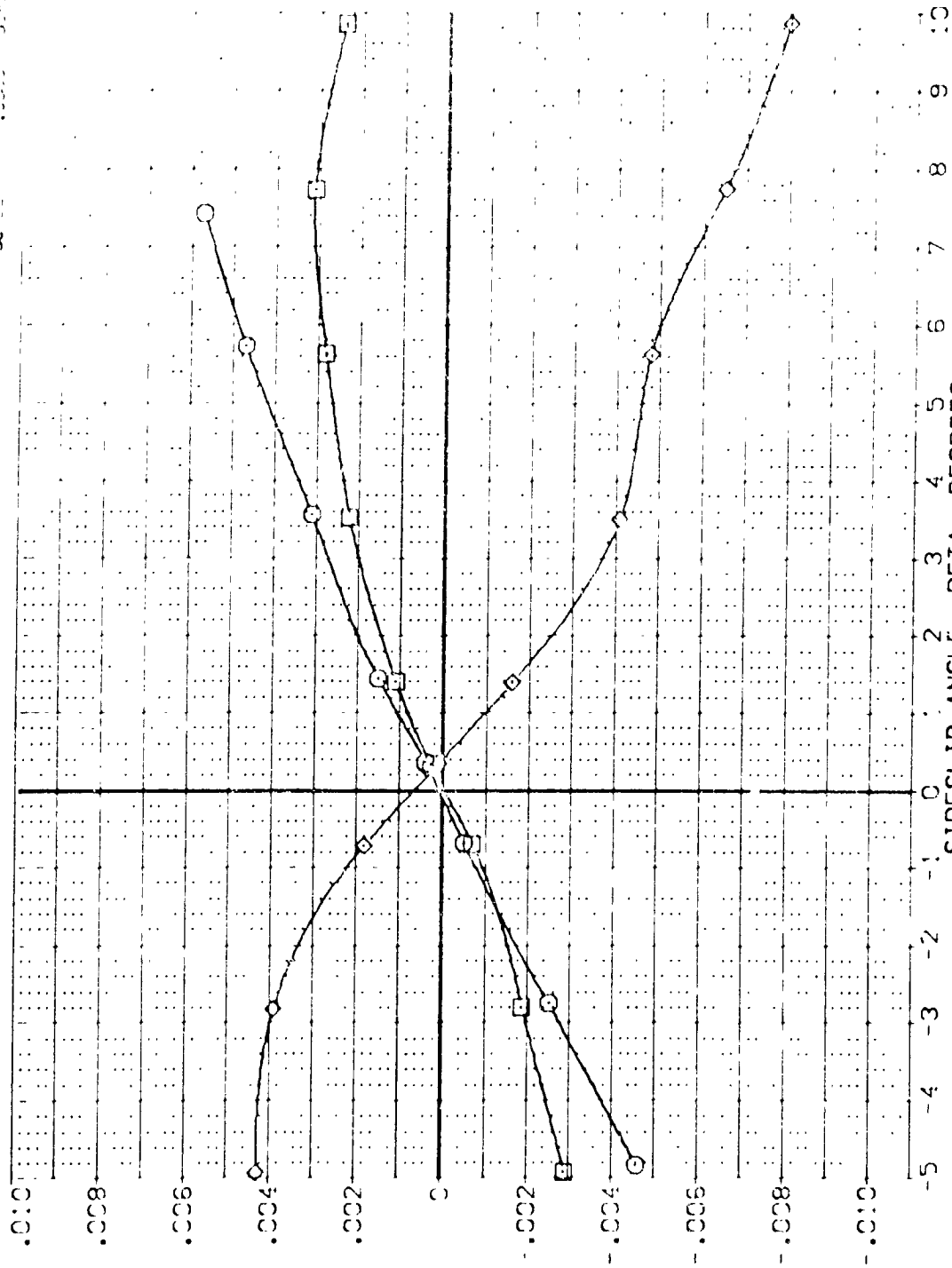
ALPHA  
0.000  
10.000  
20.000

BOFLAP  
0.000  
0.700  
0.700

SPOBRV  
85.000  
85.000  
85.000

ALLPON  
0.000  
0.000  
0.000

REFERENCE INFORMATION  
SPEC 2.4213 SCALE  
REF 14.2443  
BOFL 28.1000  
XNDO 37.3000  
YNDO 11.2000  
ZNDO 10.0000  
SCALE



YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

FIG. 13 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 3

(C) VAC = 3.50

三三三  
三三三

ALPHA	BOT LAP	SPDRK	AL RON
.000	-11,700	85,000	.000
10,000	-11,700	85,000	.000
20,000	-11,700	85,000	.000

REFERENCE INFORMATION		SQ. FT.
SREF	2.4210	
LREF	14.2440	
BREF	28.1034	
XMRD	32.3010	
YMRD	0000	
ZMRD	11.0000	
SCALE	0.0000	

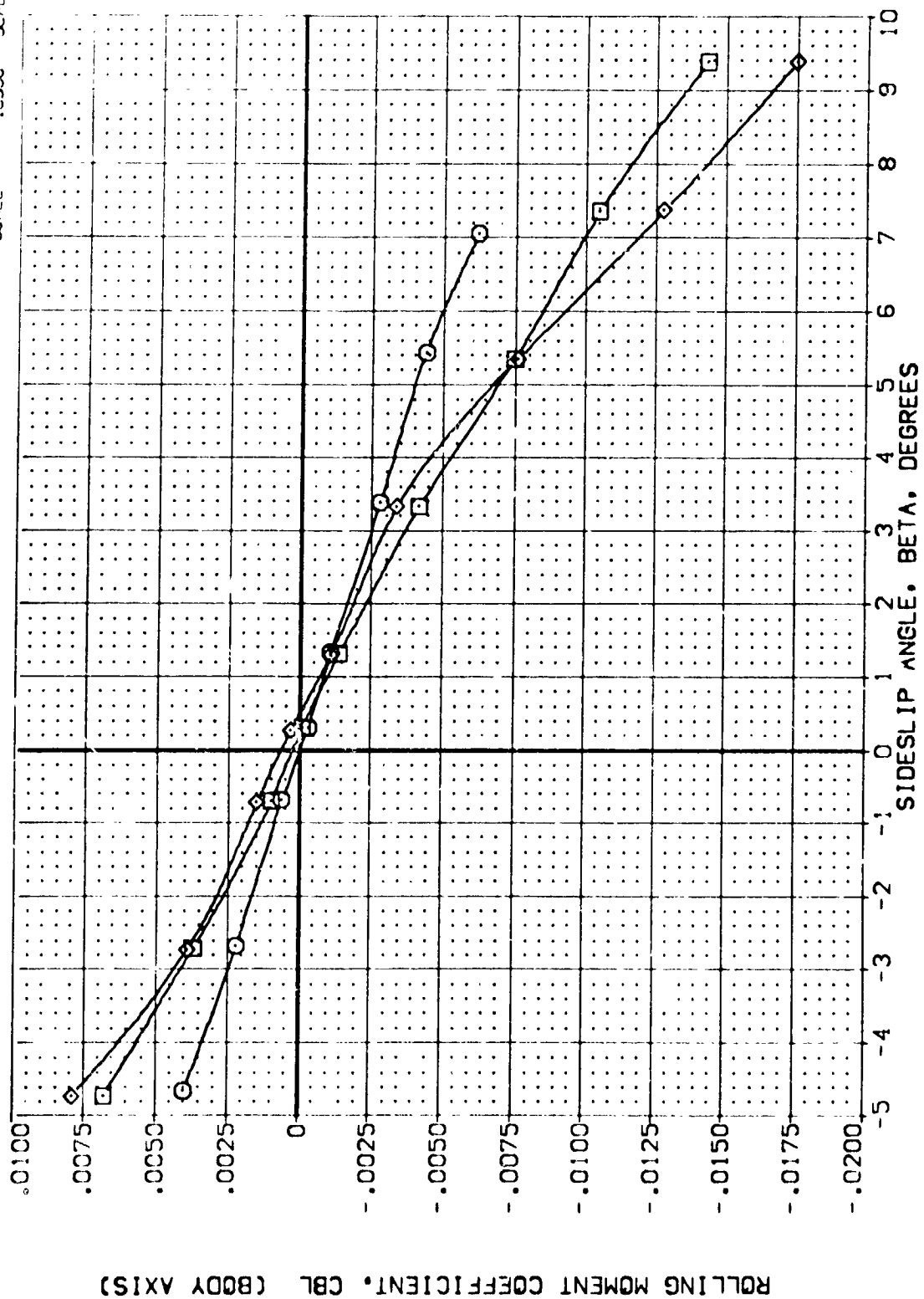


FIG. 13 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 3

**CAMACH = 2.50**



DATA SET SYMBOL CONFIGURATION DESCRIPTION

[AELAZ8] ARC 87-747 BASIC B C M F V V NOM: RV/L

[AELQ40] ARC 87-747 BASIC B C M F V V NOM: RV/L

[AELD41] ARC 87-747 BASIC B C M F V V NOM: RV/L

ALPHA .000  
10.000  
20.000

BDF LAP .000  
-11.700  
-11.700

SPDRK .000  
85.000  
85.000

AIRION .000  
85.000  
85.000

REFERENCE INFORMATION

SREF 2.4210 SQ.FT.

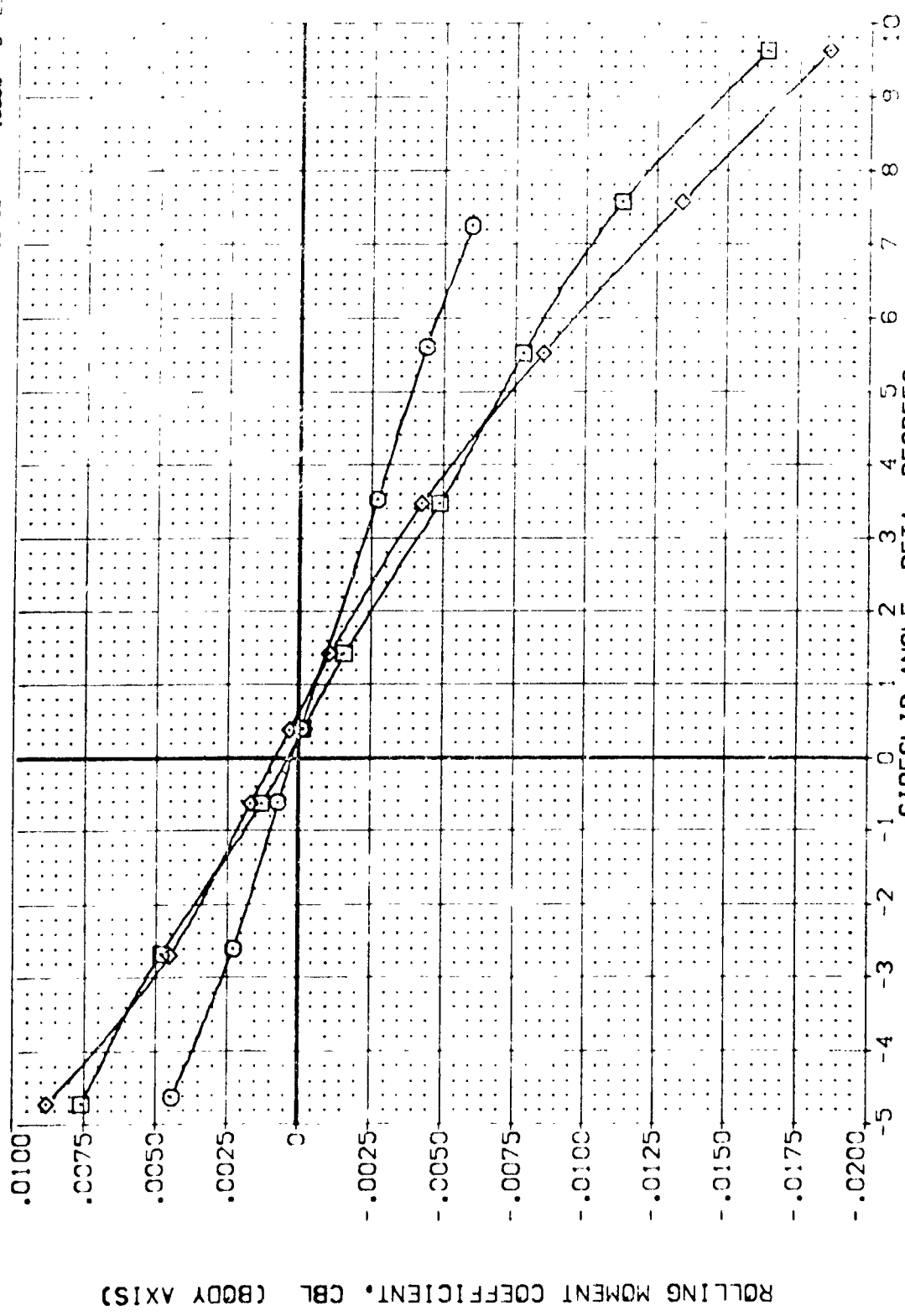
LREF 14.744C

RREF 78.100A

YREF 37.3013

ZREF .0000

SCALE 11.2500



ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

SIDESLIP ANGLE, BETA, DEGREES

FIG. 13 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 3

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BDF LAP	SPOBEM	AIR RON	REFERENCE INFORMATION
ARC 87-747	DA53C B C M F V	0.000	-11.700	85.000	.000	SREF 2.4210 SQ.FT.
ARC 87-747	DA53C B C M F V	10.000	-11.700	85.000	.000	LBREF 14.2440
ARC 87-747	DA53C B C M F V	20.000	-11.700	85.000	.000	BRREF 28.0000
						ANREF 32.3010
						ANREF 11.2500
						SCALE 0.0000

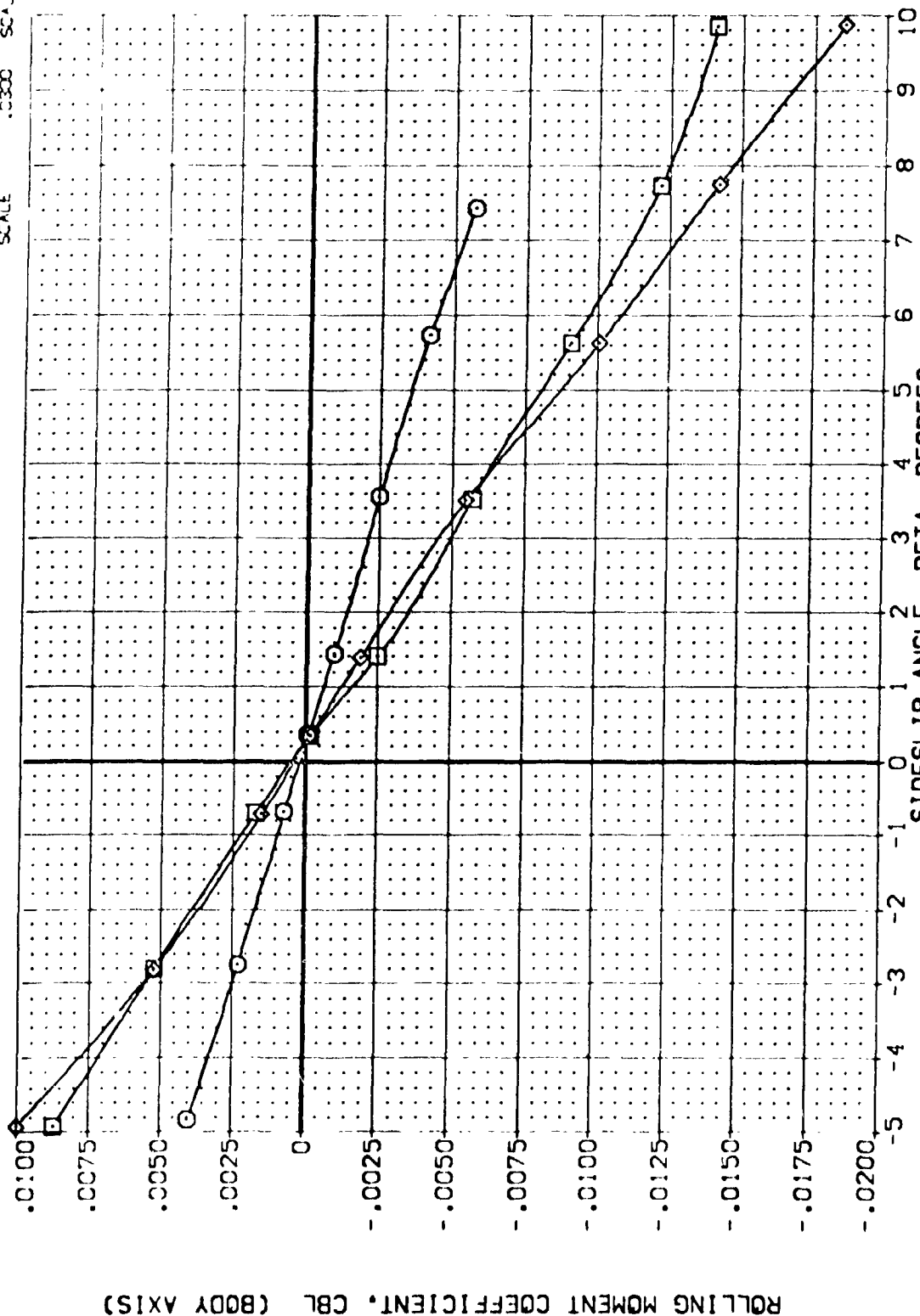


FIG. 13 LAT-DIR CHARACTERISTICS OF TOTAL VEHICLE-PART 3

(C)MACH = 3.50

SYMBOL  
○

MACH 2.500  
ELEVON  
BD FLAP  
RUDDER  
ELEV-R

PARAMETRIC VALUES  
.000 AILRON  
-11.700 SPOBRK  
.000 ELEV-L  
.000

.000 DATASET  
55.000 AEL012  
.000 AEL014

DATA SOURCE  
ALPHA  
20.000

DATASET  
AEL013

ALPHA  
10.000

SREF  
BX F  
BX F  
XMRP  
YMRP  
ZMRP  
SCALE

REFERENCE INFORMATION  
2.4210  
14.2440  
28.1004  
32.3010  
11.0000  
11.0000  
10.0000

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

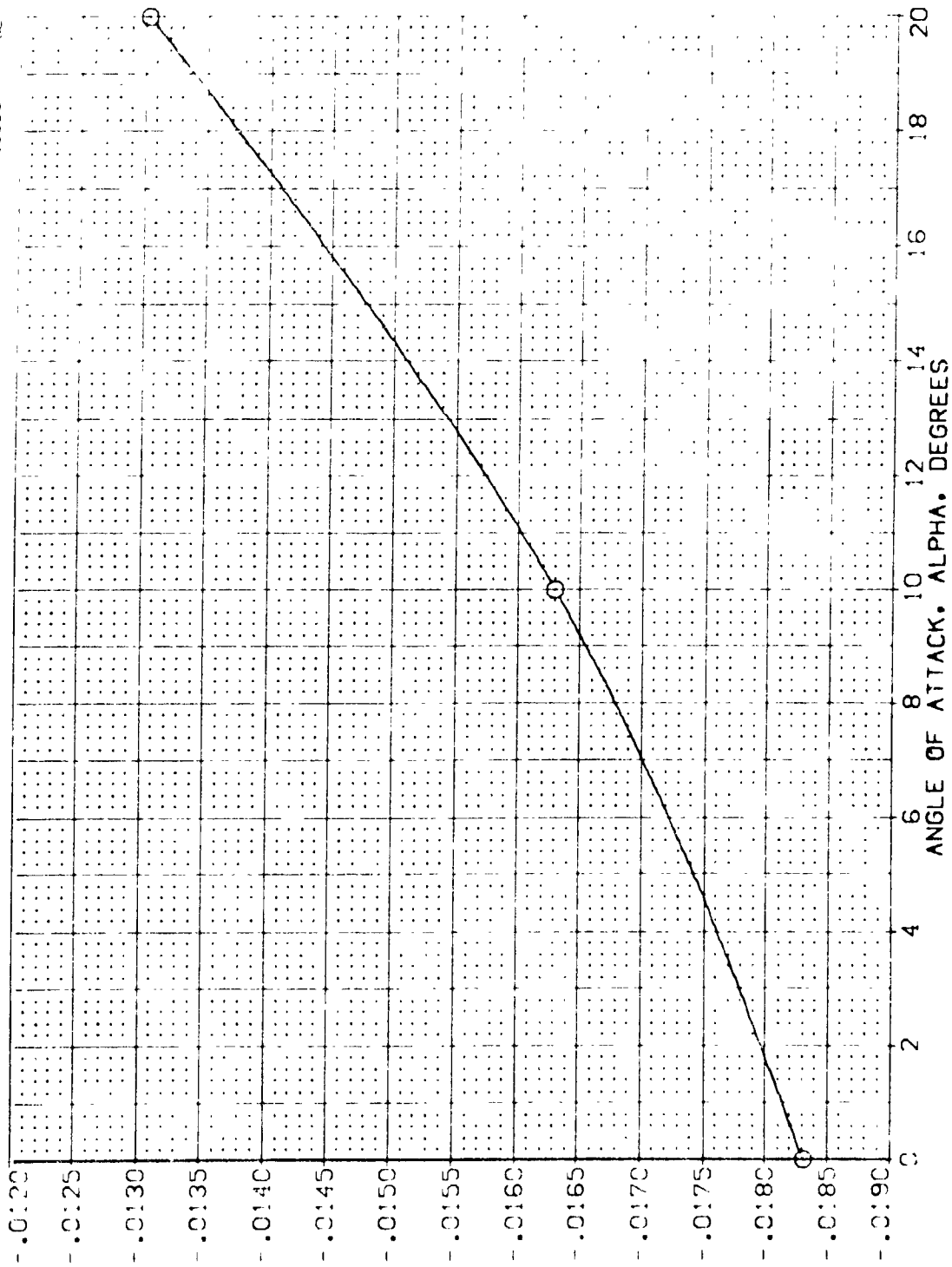


FIG. 14 LAT-JIR DERIVATIVES OF TOTAL VEHICLE-PART 1

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (AELO:2)

SYMBOL		MACH		PARAMETRIC VALUES		DATA SOURCE		DATASET		ALPHA		REFERENCE INFORMATION	
○		3.002	ELEVON	.000	ALLRON	.000	AELO12	.000	AELO13	10.000	SREF	2.4210	SC.FT.
			BOF LAP	-11.700	SPOBOK	55.000	AELO12	20.000			REF	14.2440	
			PJDER	.000	ELEVIL	.000	AELO14	.000			REF	28.1000	
			ELEVIR	.000							REF	37.3000	
											REF	.0000	
											REF	11.2000	
											REF	.0300	SCALE

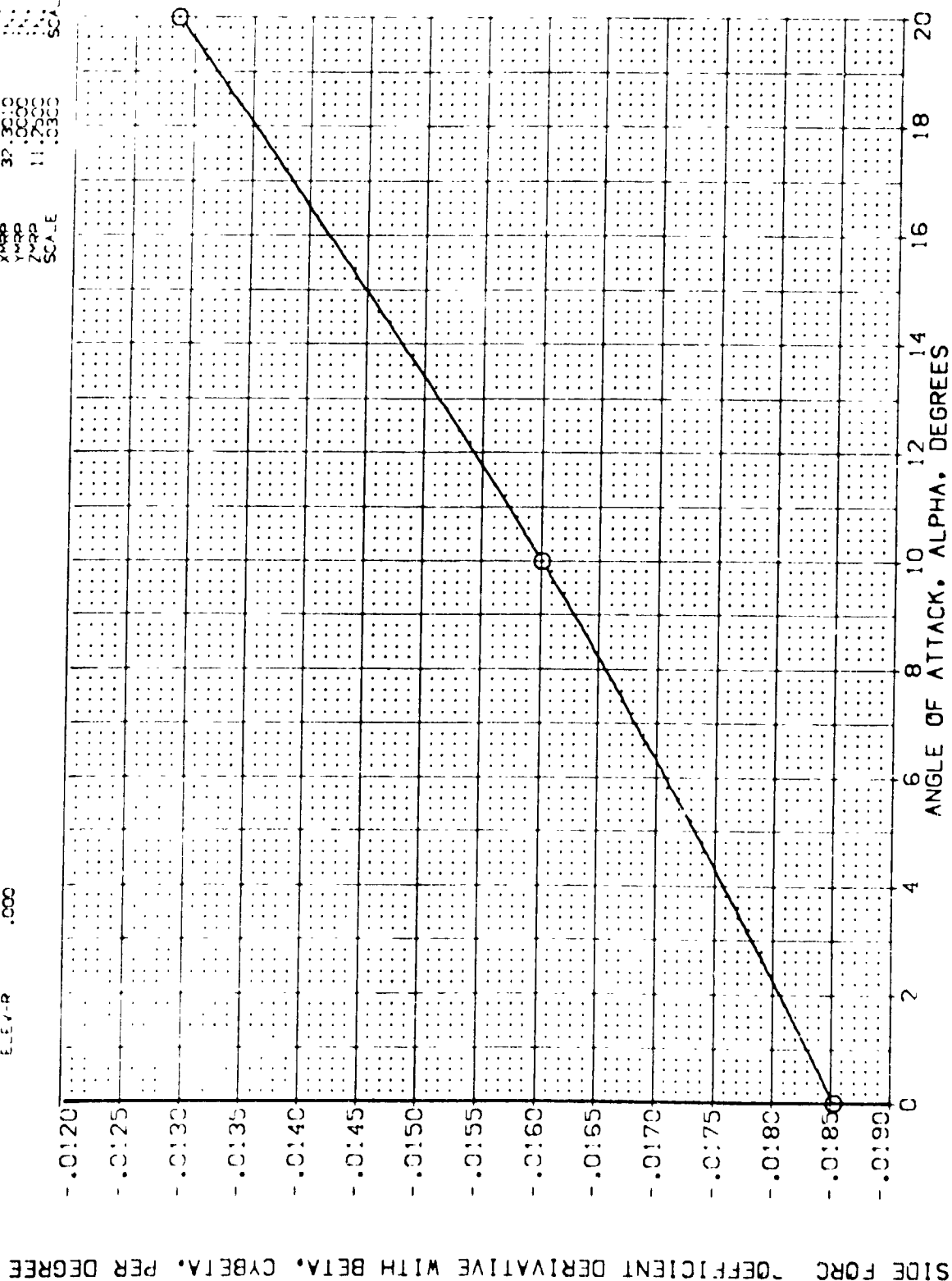


FIG. 14 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 1

SYMBOL

MACH

3.498

PARAMETRIC VALUES

ELEVATION  
BOE AP  
RUDDER  
ELEV-R

.000  
-11.700  
.000  
.000

DATA SOURCE

ALPHA  
AELO13

.000  
70.000

REFERENCE INFORMATION

SCALE  
2.4210  
14.7440  
28.1004  
32.3010  
11.5000  
1.0300

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

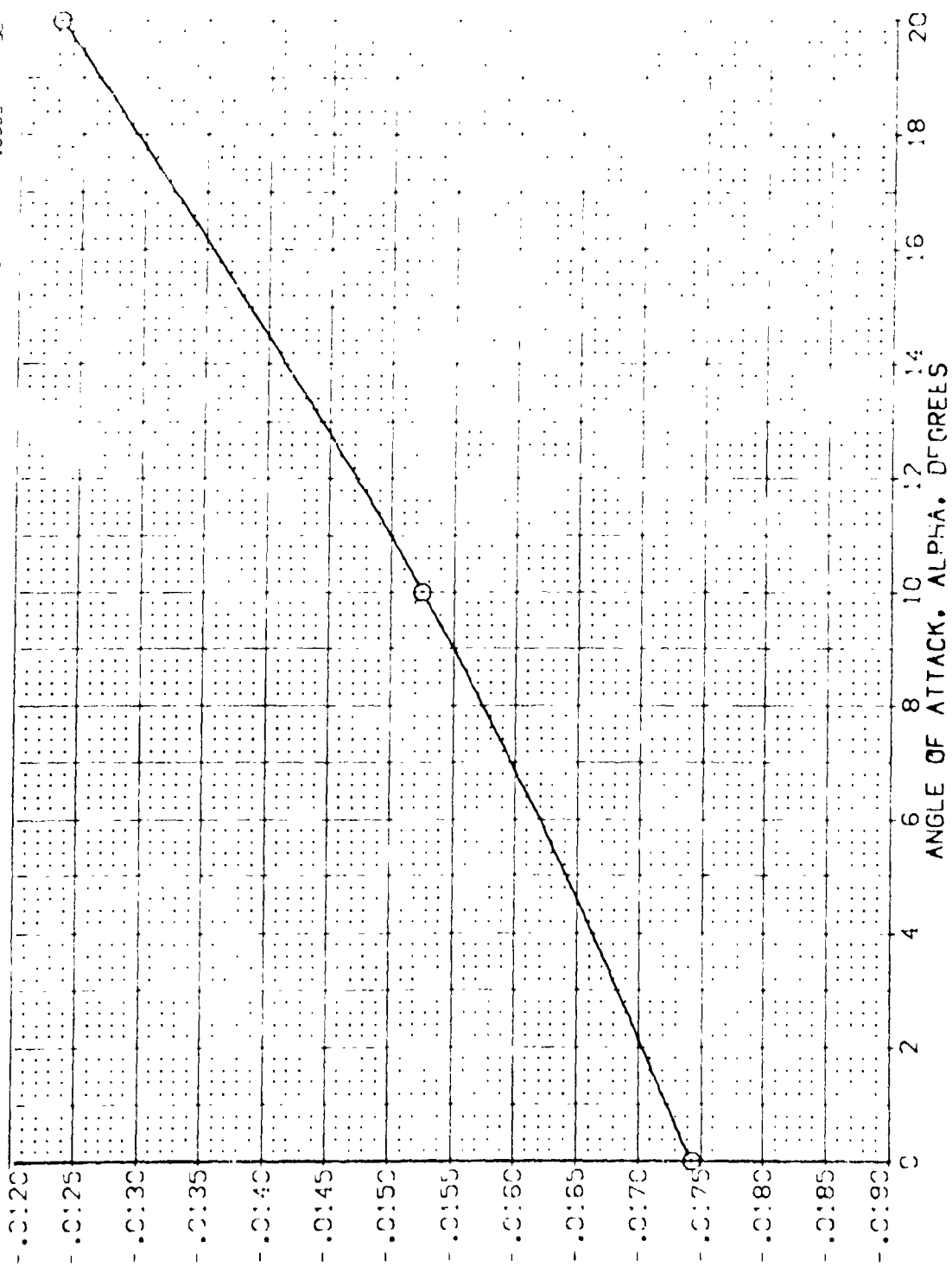
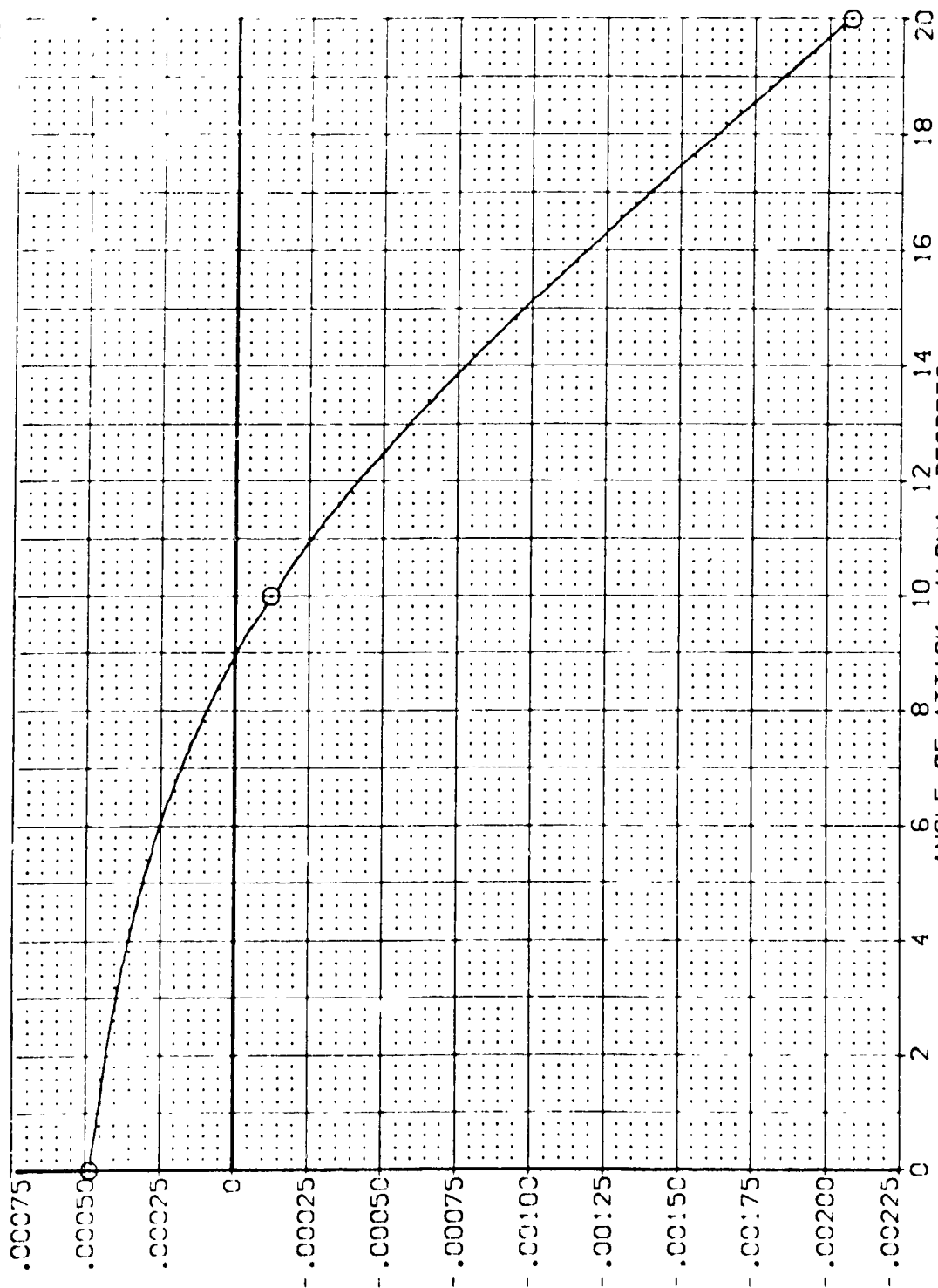


FIG. 14 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 1

ARC 87-747 CA53C B C M F W1 V NOM. RN/L (AEL012)

SYMBOL	MACH	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
○	2.500	ELEVON	.000	AIRLON	.000	DATASET	ALPHA	SREF	2.4210	SG.FT.	
		BOFLAP	-11.700	SPOBRK	55.000	AELO12	10.000	LPREF	14.2440		
		PODER	.000	ELEV-L	.000	AELO14	20.000	BPREF	28.1004		
		ELEV-R	.000					APREF	32.5010		
								YREF	1.0000		
								ZREF	11.7500		
								SCALE	1.0300		



YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYMBET, PER DEGREE

FIG. 14 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 1

ARC 87-747 CAS3C B C M F M V NCM RN/ (AEL0:2)

SYMBOL

MACH

3.002

ELEVON

BDELAP

RUDDER

ELEV-R

PARAMETRIC VALUES

.000

ALTRON

SPOBRK

ELEV-L

.000

AELO:2

AELO:4

DATA SOURCE

ALPHA

20.000

AELO:3

10.000

SCALE

.0000

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

SCALE

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

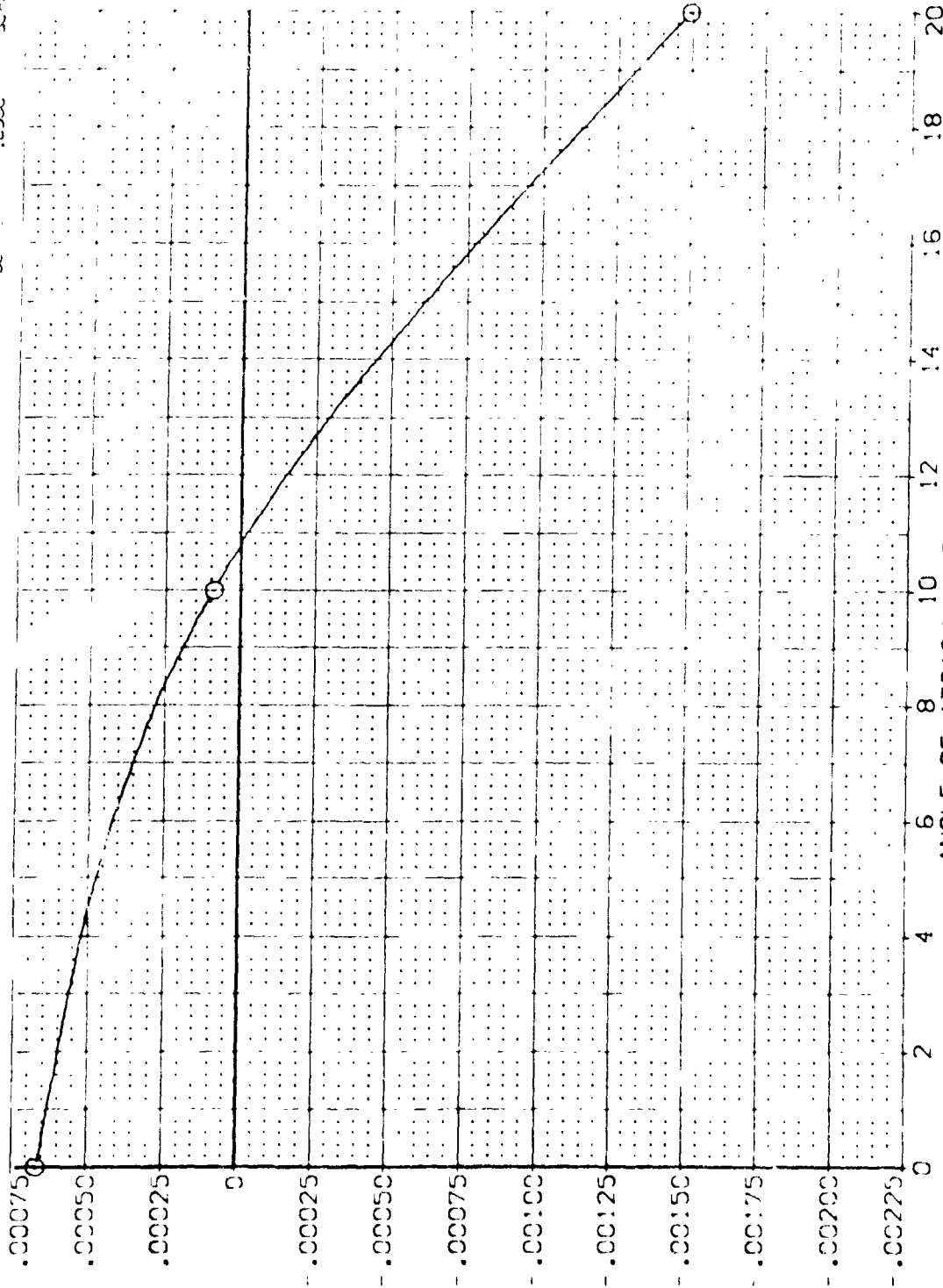


FIG. 14 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 1

(AEC: 012)

MACH

PARAMETRIC VALUES	
.000	AIRTON
-11.700	SPOCKY
.000	E.E.V.L
.000	

DATA SOURCE  
ALPHA  
-0000  
20.000

2.4210	SC.FT.
14.2440	IN.
28.1004	IN.
32.3010	IN.
.0000	IN.
11.2500	SCALE
.0300	



PAGE 389



ARC 87 747 CAS3C B C M F W1 V NOM. RV/ (AE-012)

SPEED	WIND	PARAMETRIC VALUES	DATA SOURCE	DATA	SCALE
2.500	ELEVATION	.000	ALPHA	10.000	SCALE
100.000	ROLL	.000	AELO12	10.000	SCALE
100.000	ROLL	.000	AELO13	10.000	SCALE
100.000	ROLL	.000	AELO14	10.000	SCALE
100.000	ROLL	.000	AELO15	10.000	SCALE
100.000	ROLL	.000	AELO16	10.000	SCALE
100.000	ROLL	.000	AELO17	10.000	SCALE
100.000	ROLL	.000	AELO18	10.000	SCALE
100.000	ROLL	.000	AELO19	10.000	SCALE
100.000	ROLL	.000	AELO20	10.000	SCALE
100.000	ROLL	.000	AELO21	10.000	SCALE
100.000	ROLL	.000	AELO22	10.000	SCALE
100.000	ROLL	.000	AELO23	10.000	SCALE
100.000	ROLL	.000	AELO24	10.000	SCALE
100.000	ROLL	.000	AELO25	10.000	SCALE
100.000	ROLL	.000	AELO26	10.000	SCALE
100.000	ROLL	.000	AELO27	10.000	SCALE
100.000	ROLL	.000	AELO28	10.000	SCALE
100.000	ROLL	.000	AELO29	10.000	SCALE
100.000	ROLL	.000	AELO30	10.000	SCALE
100.000	ROLL	.000	AELO31	10.000	SCALE
100.000	ROLL	.000	AELO32	10.000	SCALE
100.000	ROLL	.000	AELO33	10.000	SCALE
100.000	ROLL	.000	AELO34	10.000	SCALE
100.000	ROLL	.000	AELO35	10.000	SCALE
100.000	ROLL	.000	AELO36	10.000	SCALE
100.000	ROLL	.000	AELO37	10.000	SCALE
100.000	ROLL	.000	AELO38	10.000	SCALE
100.000	ROLL	.000	AELO39	10.000	SCALE
100.000	ROLL	.000	AELO40	10.000	SCALE
100.000	ROLL	.000	AELO41	10.000	SCALE
100.000	ROLL	.000	AELO42	10.000	SCALE
100.000	ROLL	.000	AELO43	10.000	SCALE
100.000	ROLL	.000	AELO44	10.000	SCALE
100.000	ROLL	.000	AELO45	10.000	SCALE
100.000	ROLL	.000	AELO46	10.000	SCALE
100.000	ROLL	.000	AELO47	10.000	SCALE
100.000	ROLL	.000	AELO48	10.000	SCALE
100.000	ROLL	.000	AELO49	10.000	SCALE
100.000	ROLL	.000	AELO50	10.000	SCALE
100.000	ROLL	.000	AELO51	10.000	SCALE
100.000	ROLL	.000	AELO52	10.000	SCALE
100.000	ROLL	.000	AELO53	10.000	SCALE
100.000	ROLL	.000	AELO54	10.000	SCALE
100.000	ROLL	.000	AELO55	10.000	SCALE
100.000	ROLL	.000	AELO56	10.000	SCALE
100.000	ROLL	.000	AELO57	10.000	SCALE
100.000	ROLL	.000	AELO58	10.000	SCALE
100.000	ROLL	.000	AELO59	10.000	SCALE
100.000	ROLL	.000	AELO60	10.000	SCALE
100.000	ROLL	.000	AELO61	10.000	SCALE
100.000	ROLL	.000	AELO62	10.000	SCALE
100.000	ROLL	.000	AELO63	10.000	SCALE
100.000	ROLL	.000	AELO64	10.000	SCALE
100.000	ROLL	.000	AELO65	10.000	SCALE
100.000	ROLL	.000	AELO66	10.000	SCALE
100.000	ROLL	.000	AELO67	10.000	SCALE
100.000	ROLL	.000	AELO68	10.000	SCALE
100.000	ROLL	.000	AELO69	10.000	SCALE
100.000	ROLL	.000	AELO70	10.000	SCALE
100.000	ROLL	.000	AELO71	10.000	SCALE
100.000	ROLL	.000	AELO72	10.000	SCALE
100.000	ROLL	.000	AELO73	10.000	SCALE
100.000	ROLL	.000	AELO74	10.000	SCALE
100.000	ROLL	.000	AELO75	10.000	SCALE
100.000	ROLL	.000	AELO76	10.000	SCALE
100.000	ROLL	.000	AELO77	10.000	SCALE
100.000	ROLL	.000	AELO78	10.000	SCALE
100.000	ROLL	.000	AELO79	10.000	SCALE
100.000	ROLL	.000	AELO80	10.000	SCALE
100.000	ROLL	.000	AELO81	10.000	SCALE
100.000	ROLL	.000	AELO82	10.000	SCALE
100.000	ROLL	.000	AELO83	10.000	SCALE
100.000	ROLL	.000	AELO84	10.000	SCALE
100.000	ROLL	.000	AELO85	10.000	SCALE
100.000	ROLL	.000	AELO86	10.000	SCALE
100.000	ROLL	.000	AELO87	10.000	SCALE
100.000	ROLL	.000	AELO88	10.000	SCALE
100.000	ROLL	.000	AELO89	10.000	SCALE
100.000	ROLL	.000	AELO90	10.000	SCALE
100.000	ROLL	.000	AELO91	10.000	SCALE
100.000	ROLL	.000	AELO92	10.000	SCALE
100.000	ROLL	.000	AELO93	10.000	SCALE
100.000	ROLL	.000	AELO94	10.000	SCALE
100.000	ROLL	.000	AELO95	10.000	SCALE
100.000	ROLL	.000	AELO96	10.000	SCALE
100.000	ROLL	.000	AELO97	10.000	SCALE
100.000	ROLL	.000	AELO98	10.000	SCALE
100.000	ROLL	.000	AELO99	10.000	SCALE
100.000	ROLL	.000	AELO100	10.000	SCALE

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE

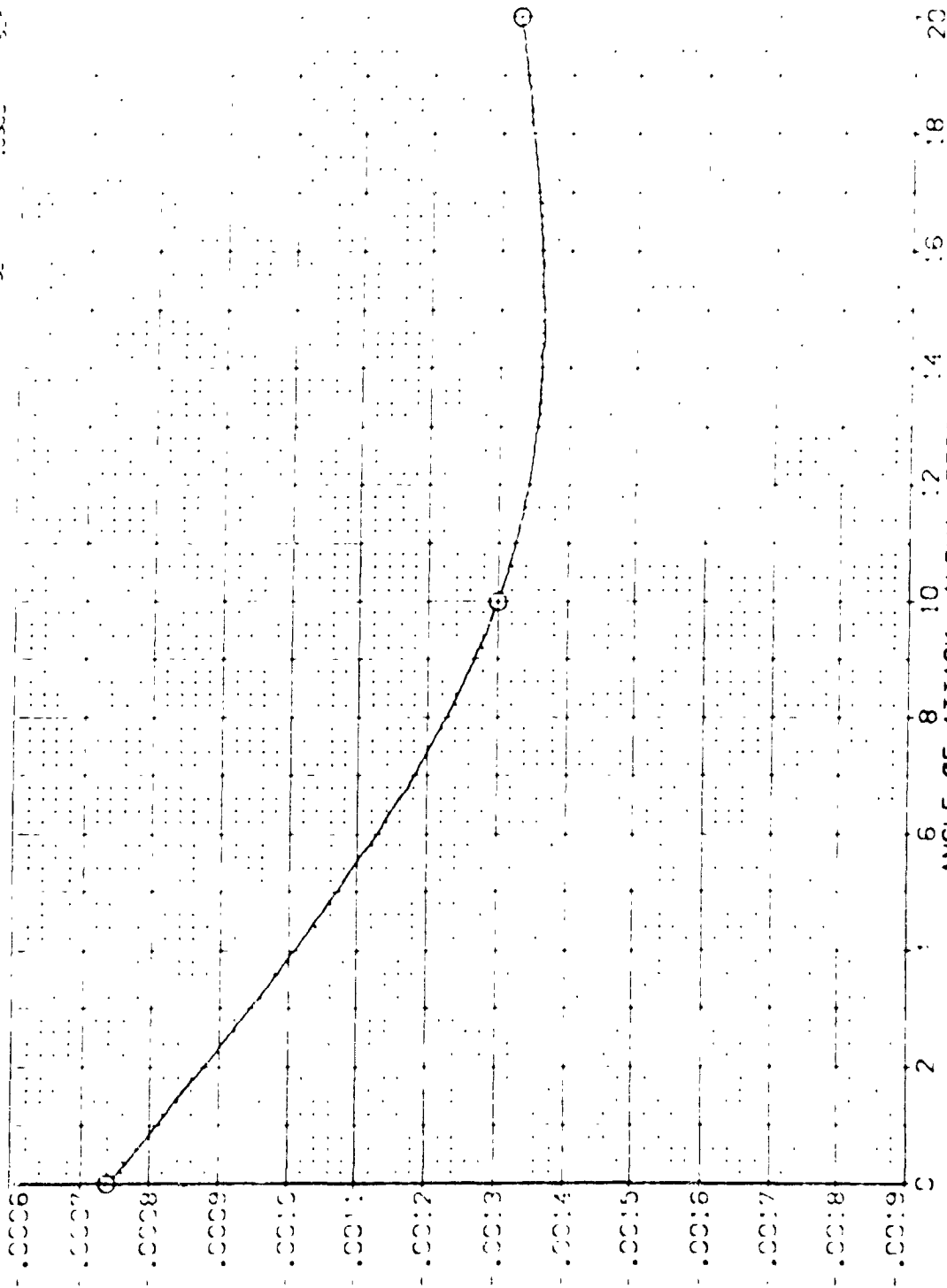


FIG. 14 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 1

2025

3-202

PARAMETER	UNIT	VALUE
...	...	...
...	...	...
...	...	...
...	...	...

000.  
000.  
000.  
000.

000000

SOURCE

^ 00

...

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH  $\beta_1$ , CUBIC, PER DEGREE

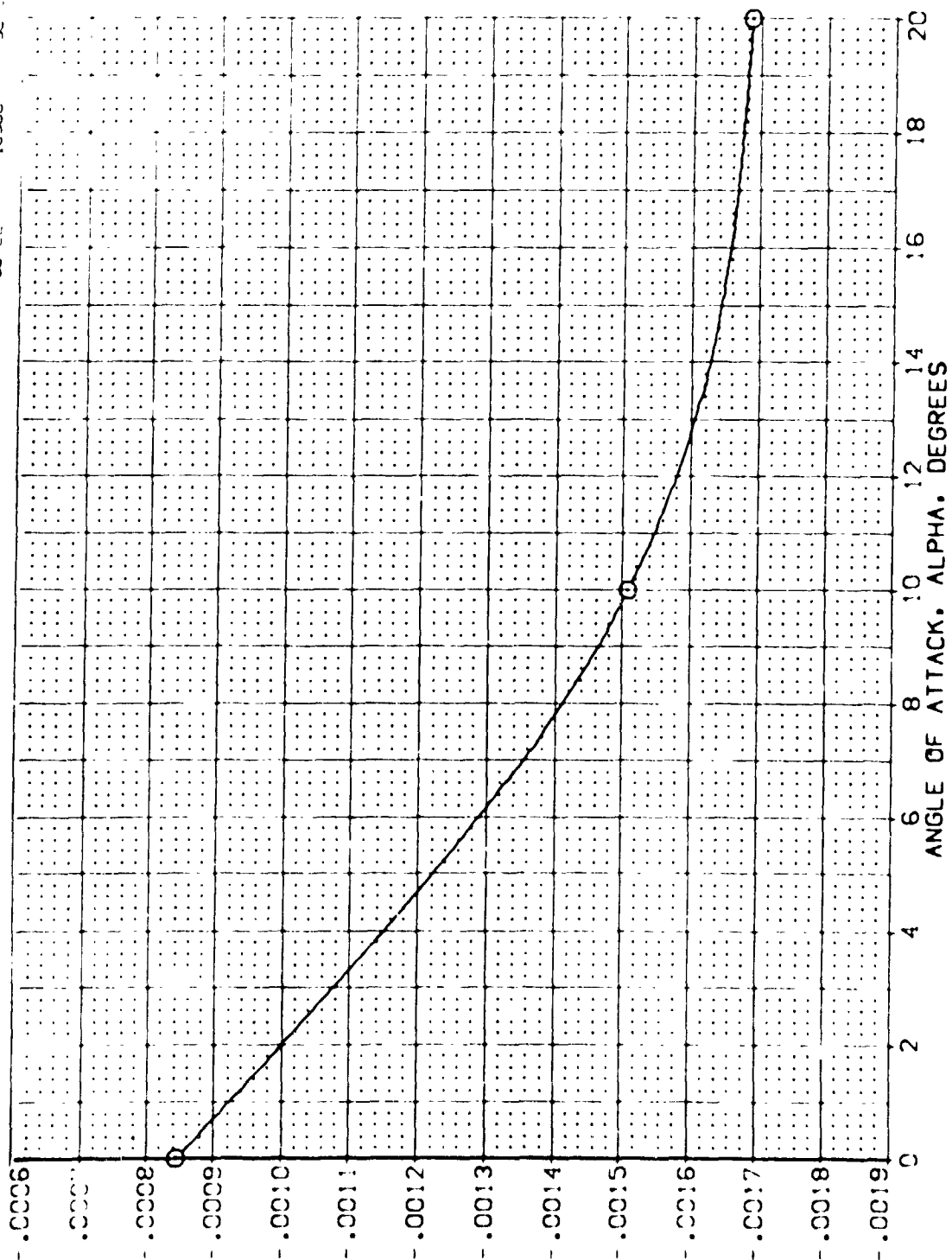


FIG. 14 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 1

MAC.  
3.496

ELEVEN  
DOF, AP  
RDOER  
: : - R

PARAMETRIC VALUES
AIRFLOW
SPD800K
LEVEL

DATA SET	DATA SOURCE
.000	ALPHA
55.000	AELC12
.000	AELC14
	70.000

DATA SOURCE  
ALPHA  
20.000  
20.000

DATASET	ALPHA	SHEET
ALLO13	10.000	001
		002
		003
		004
		005
		SCALE

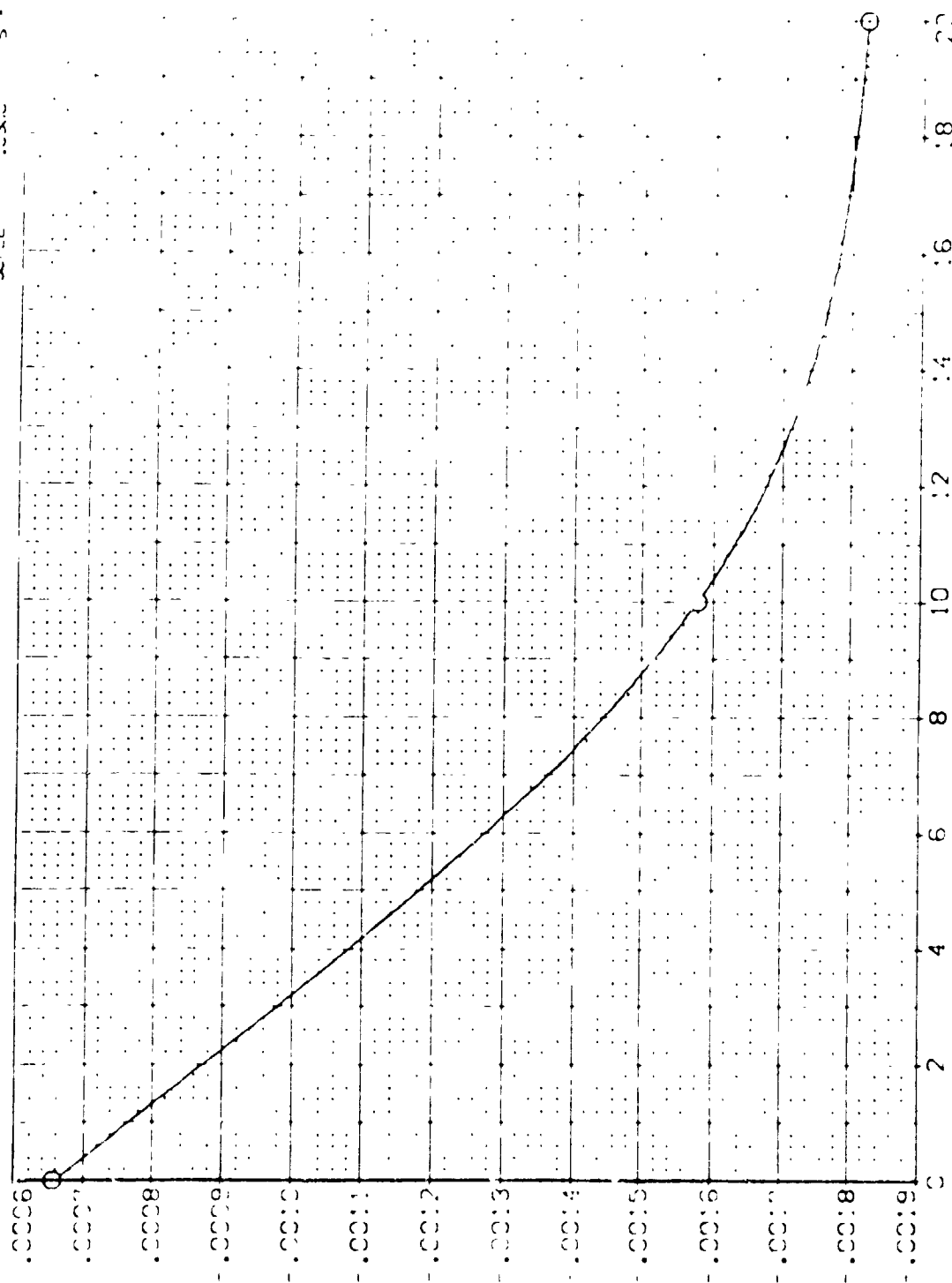
[illegible]

FIG. 14 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 1

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (AEL025)

SYNOPSIS	MACH	2.498	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
	ELEVON	.000	AILRON	.000	.000	ALPHA	20.000	SREF	2.4210	SCALE	1.0000
	BOFLAP	-11.700	SPOBRK	.000	25.000	AELO25	.000	LRFF	14.2440	SCALE	1.0000
	RJDDER	.000	ELEV-L	.000	.000	AELO27	20.000	BRFF	28.1000	SCALE	1.0000
	ELEV-R	.000						VRFF	32.3000	SCALE	1.0000
								VRFF	11.2500	SCALE	1.0000
								VRFF	.0300	SCALE	1.0000

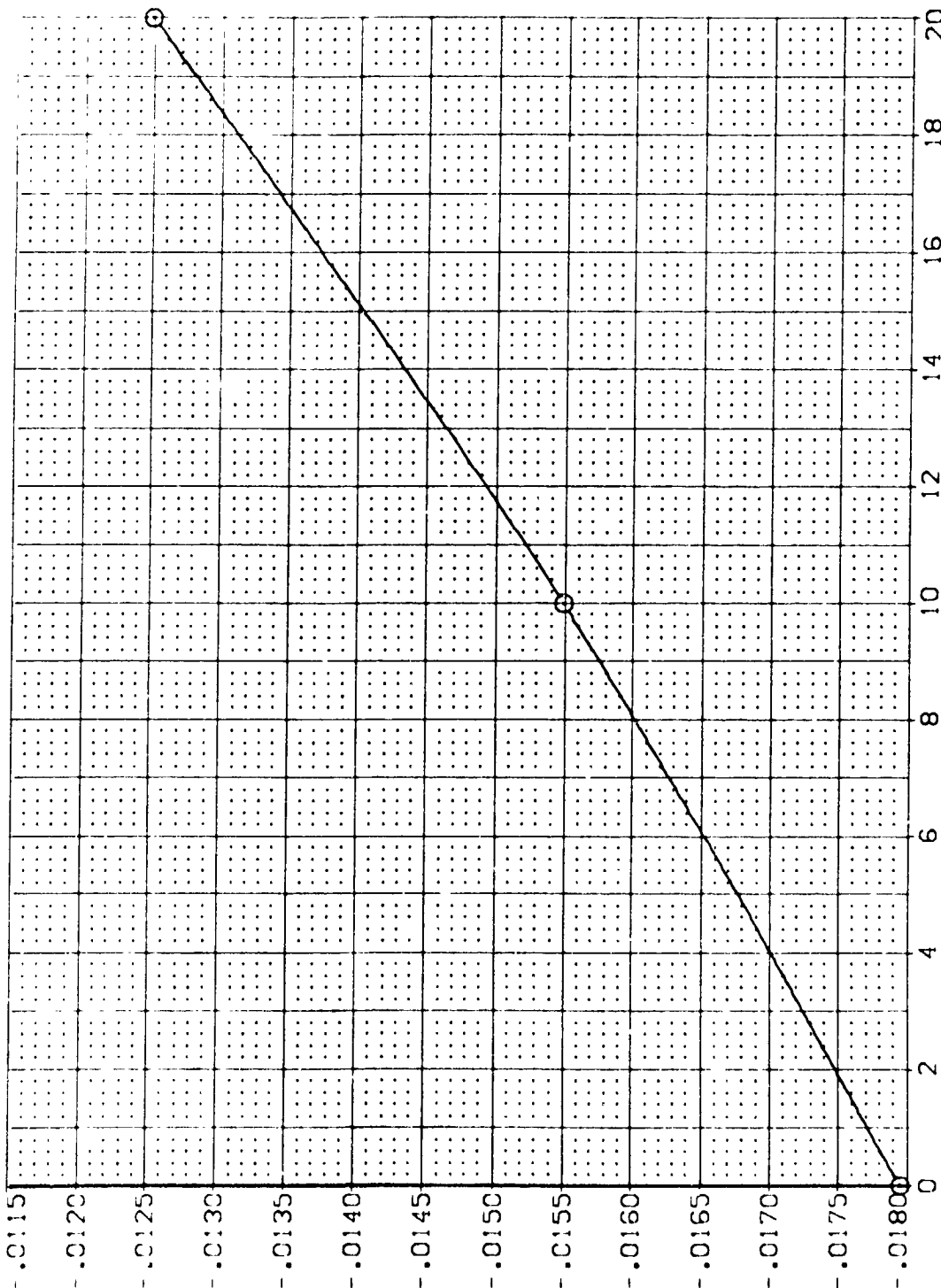


FIG. 15 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 2

Symbol

25

8-1373  
E3002e  
d7-103  
NOV 3 1955

PARAMETRIC VALUES
ALPHA
SPOB
ELEV

DATA SOURCE	DATASET	NO.
AD-4	AE-025	05,000
	AE-027	20,000

DATA SET A DATA  
AE-026 10,000

[illegible]

2.4210  
14.2440  
28.1564  
32.2000

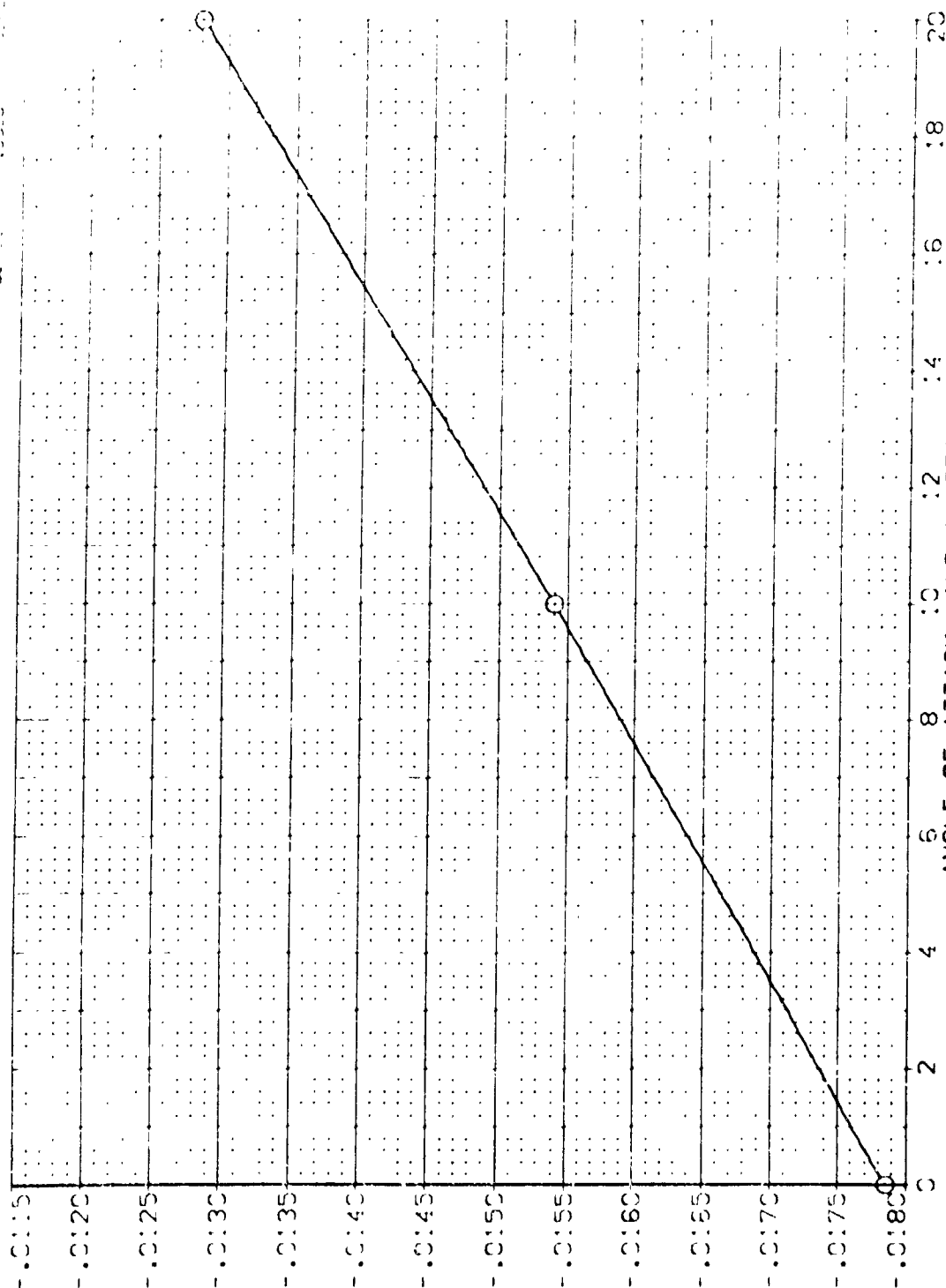


FIG. 15 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 2

ARC 87-747 JAS3C B C M F W: V NCM, RN/... (AE\_025)

SYMBOL: MACH 3.486  
 PARAMETRIC VALUES  
 ELEVON: .000  
 BDFLAP: -11.700  
 RUDDER: .000  
 FLEV-R: .000  
 DATA SOURCE  
 DATASET: AEL025  
 ALPHA: 20.000  
 DATASET: AEL026  
 ALPHA: 10.000  
 REFERENCE INFORMATION  
 SCALE: 2.4210  
 SCALE: 14.2440  
 SCALE: 28.1004  
 SCALE: 32.1300  
 SCALE: 11.7500  
 SCALE: 10.300

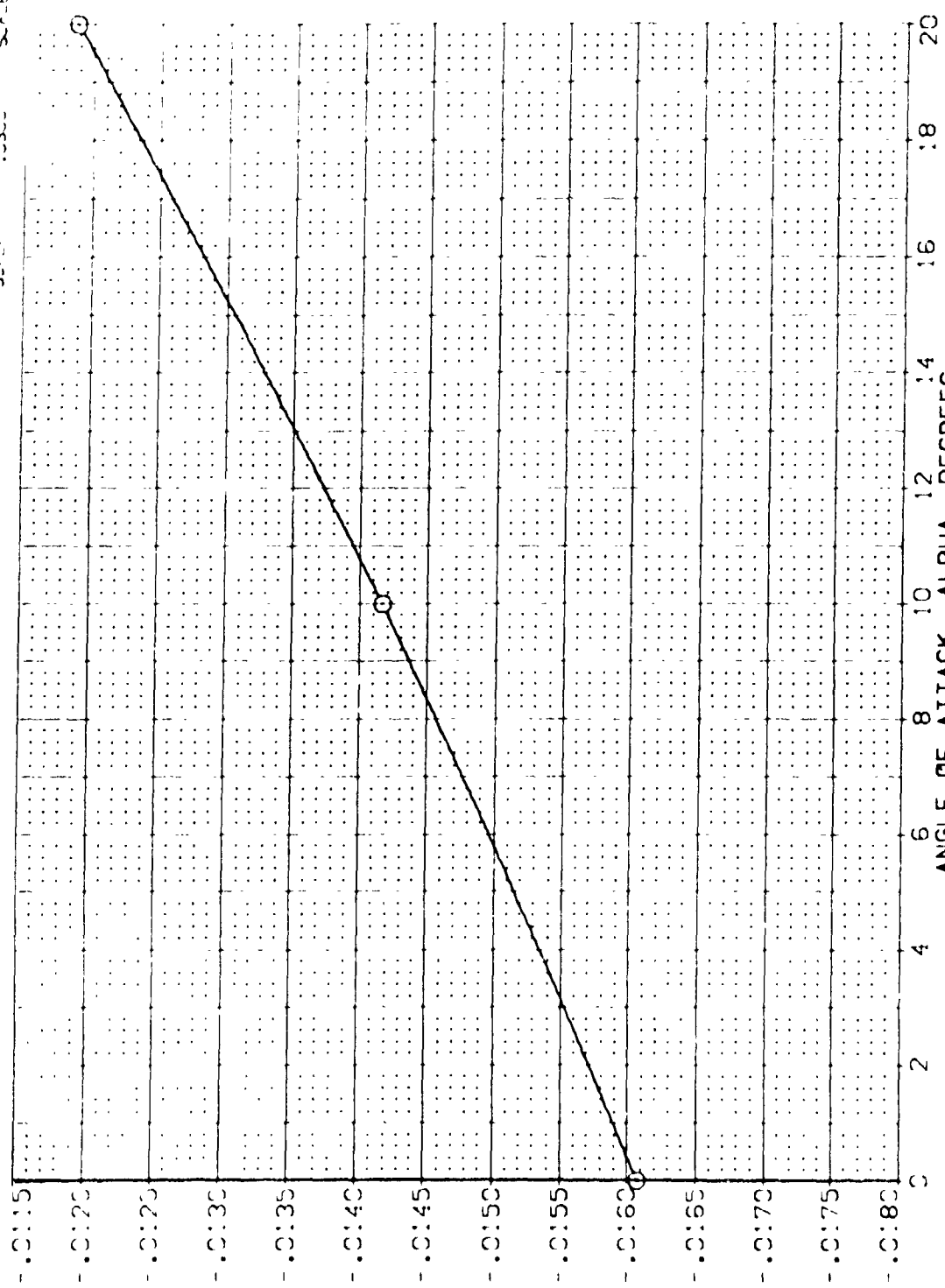


FIG. 15 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 2

ARC 87-747 CA53C B C M F W: V NOV. 1947 (A: 025)

5

AC-11  
2.498

ELEVON	.000	ALLIRON
BOFLAP	-11.700	SPOBRY
BUDDER	.000	ELV
ELEV-P	.000	

	DATA SOURCE
ALPHA	
AELO025	25,000
AELO027	20,000

DATASET: A.PH-A  
 AE-026 10.000

RECEIVED BY THE SECRETARY OF THE ARMY  
JAN 10 1968

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYMBET, PER DEGREE

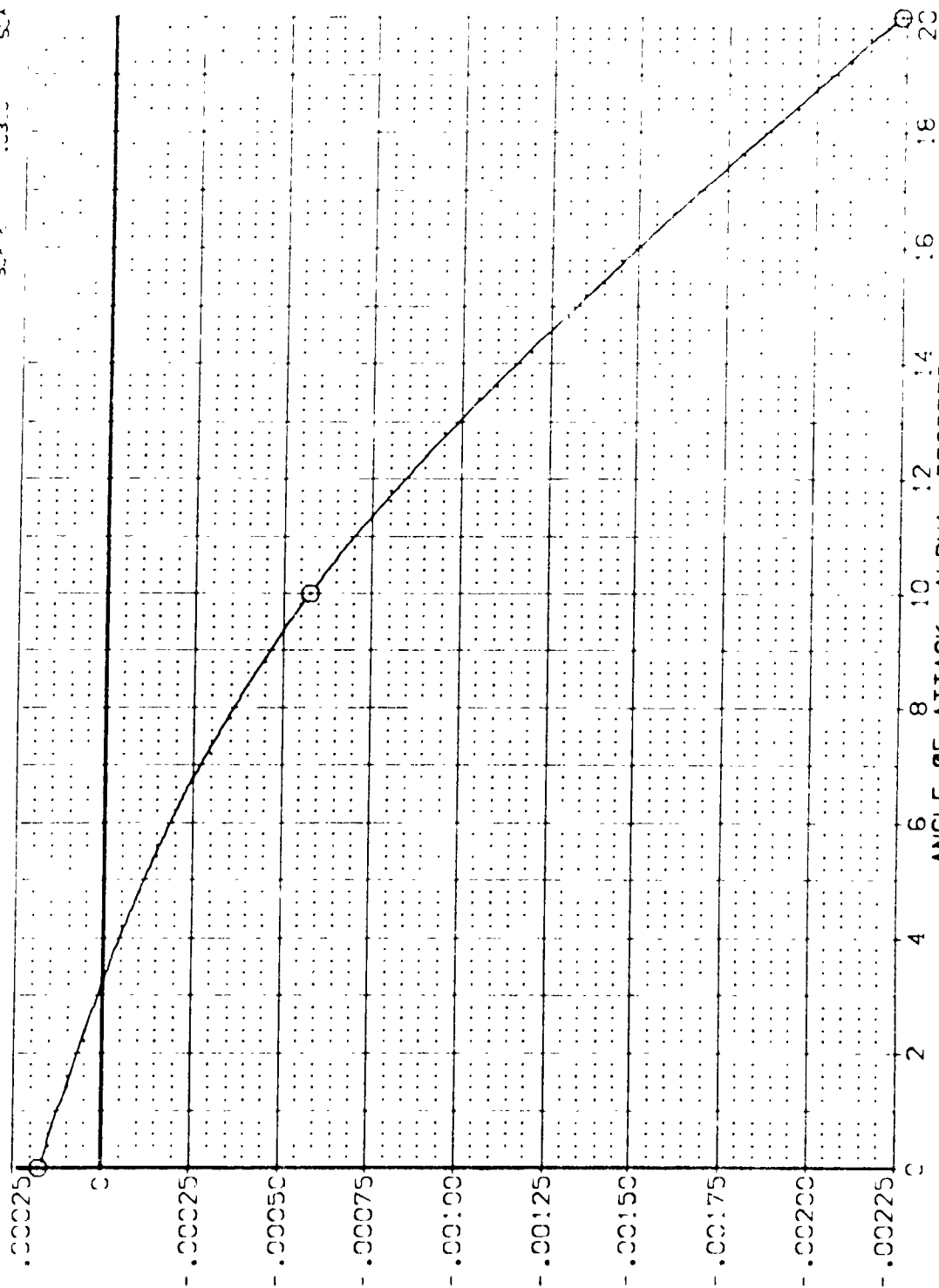


FIG. 15 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 2



ARC 87-147 CA53C B C M F W I V NOM. RN/L (AELO25)

SYMBOL	WIND	3.00	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
	ELEVATION	.000	AELO25	ALPHA	SPREF
	BOF AD	-11.700	SP08BK	AELO26	LRFE
	EV-R	.000	AELO27	AELO26	BRFE
	EV-R	.000		AELO27	YMRP
					ZMRP
					SCALE

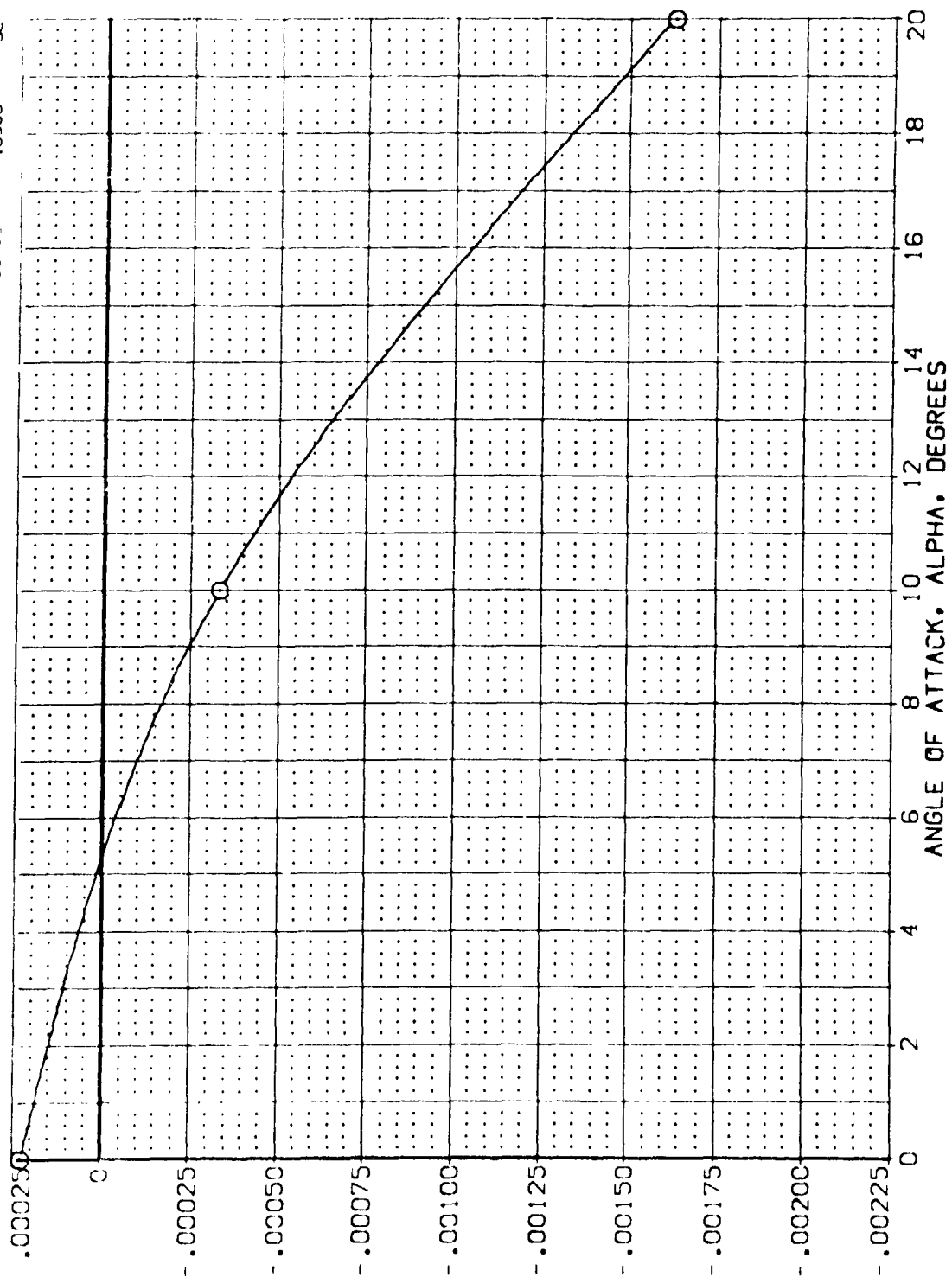


FIG. 15 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 2



SYMS ( )

MACH  
3.496

ELEVON  
BOFLAP  
RUDDER  
ELEV-R

PARAMETRIC VALUES	
.000	AIRPO.
-11.700	SPDB*
.000	ELEV -
.000	

.000	DATASET
25.000	AELC25
.000	AELC27

DATA SOURCE  
ALPHA  
000000  
20:00

DATA SET ALPHA  
AELO26 10.00

0  
SPE  
- 100  
- 100  
- 100  
- 100  
- 100

REFERENCES: IN COMPARISON

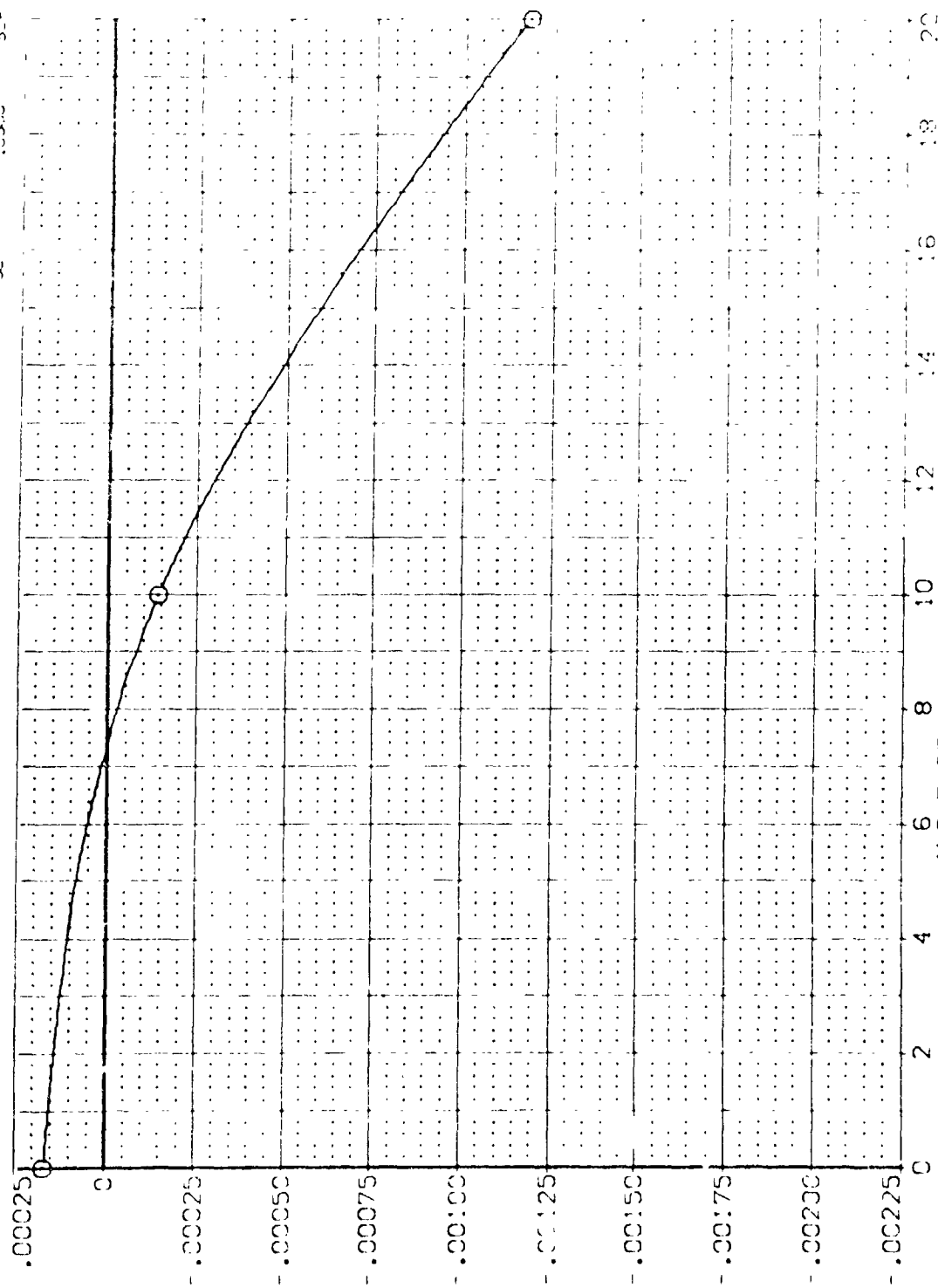


FIG. 15 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 2

51450

WASH

2.496

1.170

1.000

1.000

1.000

1.000

1.000

1.000

1.000

1.000

1.000

1.000

1.000

1.000

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, COULBERT, PER DEGREE

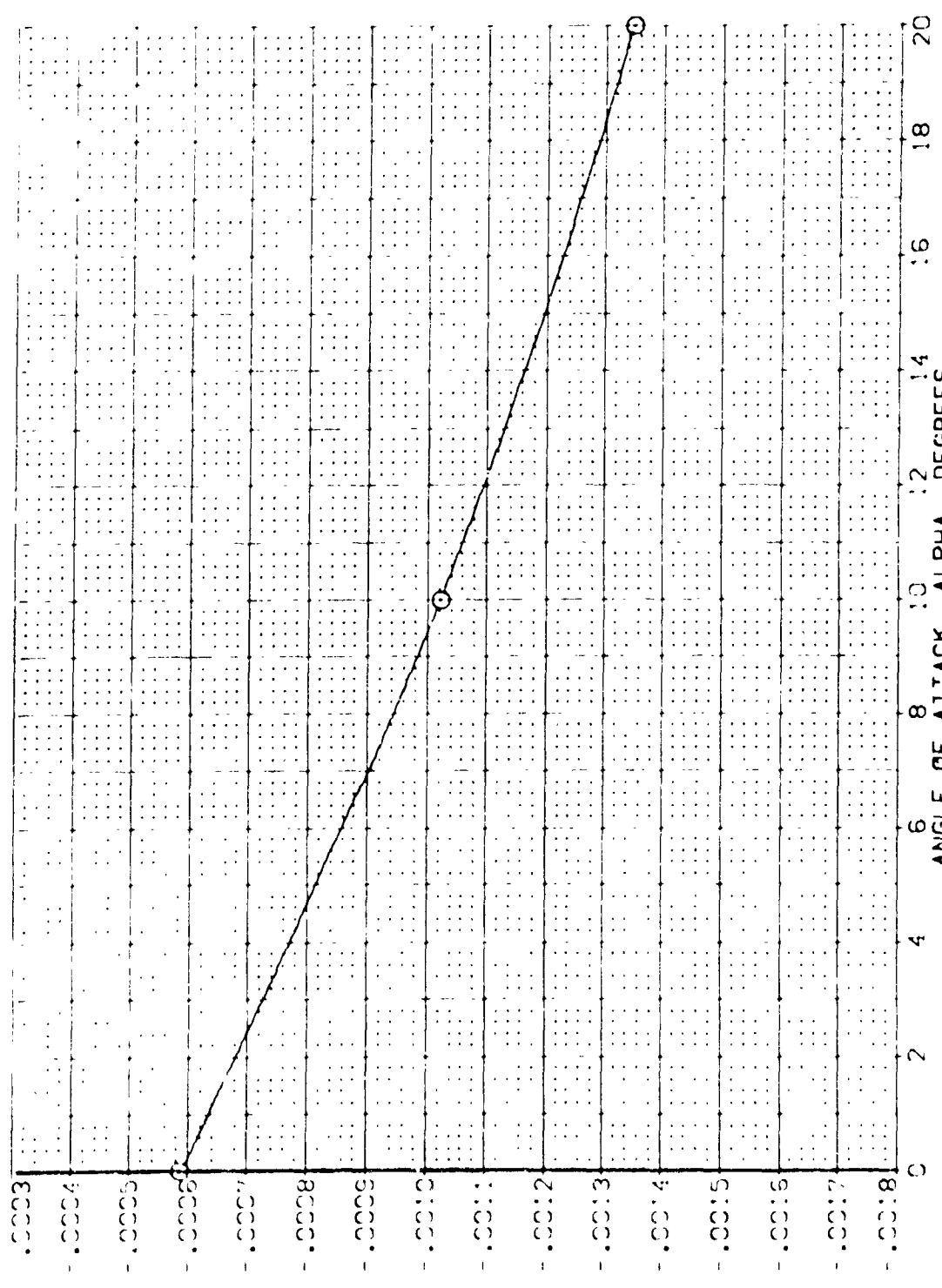


FIG. 15 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 2

ARC 87-747 0453C B C M F W1 V NOM. RV/L (AELO25)

SYMBOL	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
○	3.001	ELEVON	.000	ALURON	ALPHA	SCALE	2.0210
		BDFLAP	-11.700	SP23PK	AELO25	SCALE	14.0410
		RUDER	.000	ELEV-L	AELO25	SCALE	2.0210
		ELEV-R	.000	AELO27	AELO25	SCALE	11.0210

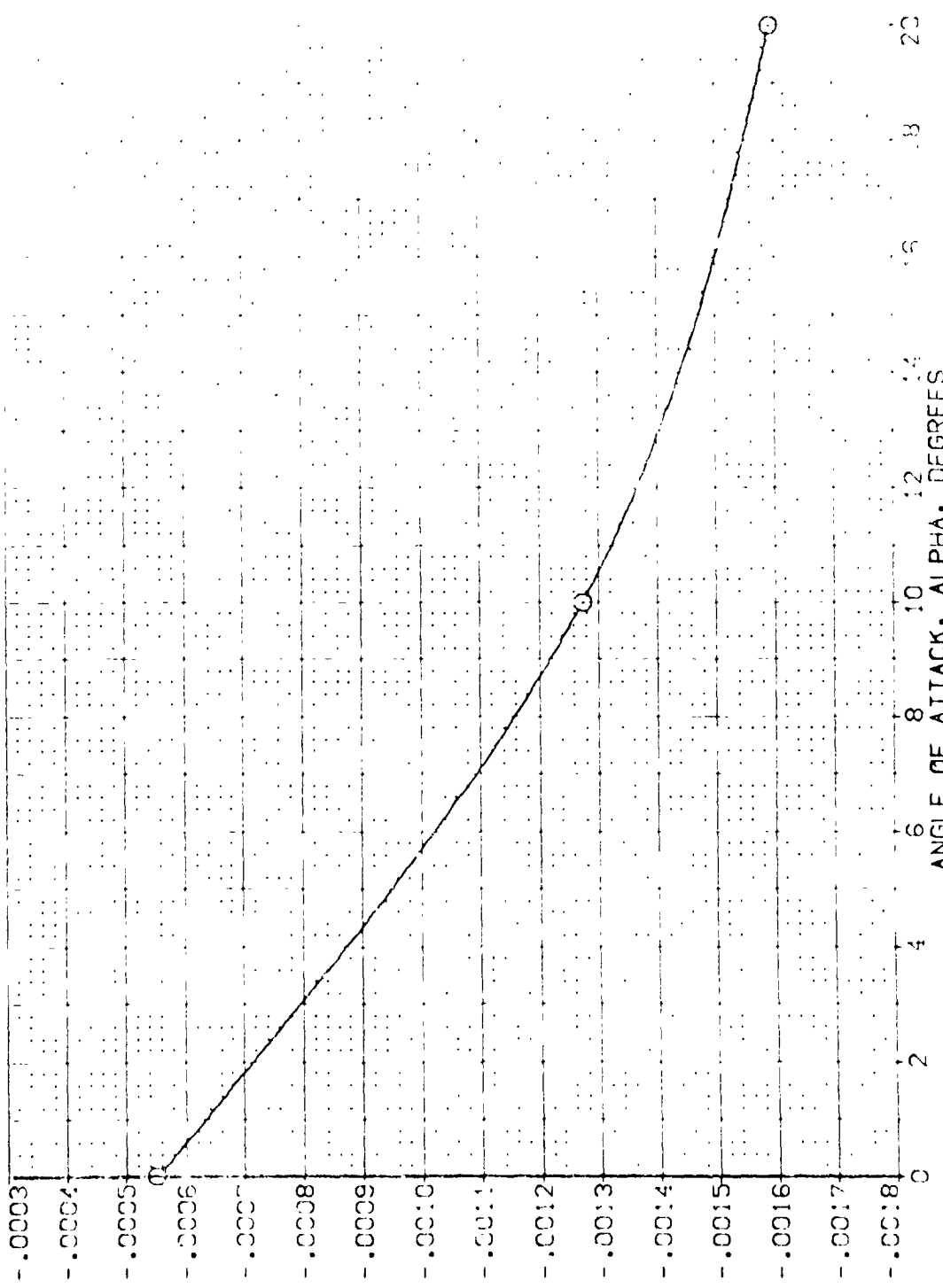


FIG. 15 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 2

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CBLBET, PER DEGREE



ARC 87-747 CA53C B C M F A V NCM, RNV (A: A39)

5480

MACH

2.458

PARAMETRIC VALUES

ELEVON .000  
BOULAP -11.700  
PODER .000  
ELEV-R .700

DATA SOURCE

ALPHA .000  
AEI-39 85.000  
AEI-39 .000

DATA SOURCE

ALPHA .000  
AEI-39 20.000  
AEI-39 .000

DATA SOURCE

ALPHA .000  
AEI-39 .000  
AEI-39 .000

DATA SOURCE

ALPHA .000  
AEI-39 .000  
AEI-39 .000

DATA SOURCE

ALPHA .000  
AEI-39 .000  
AEI-39 .000

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

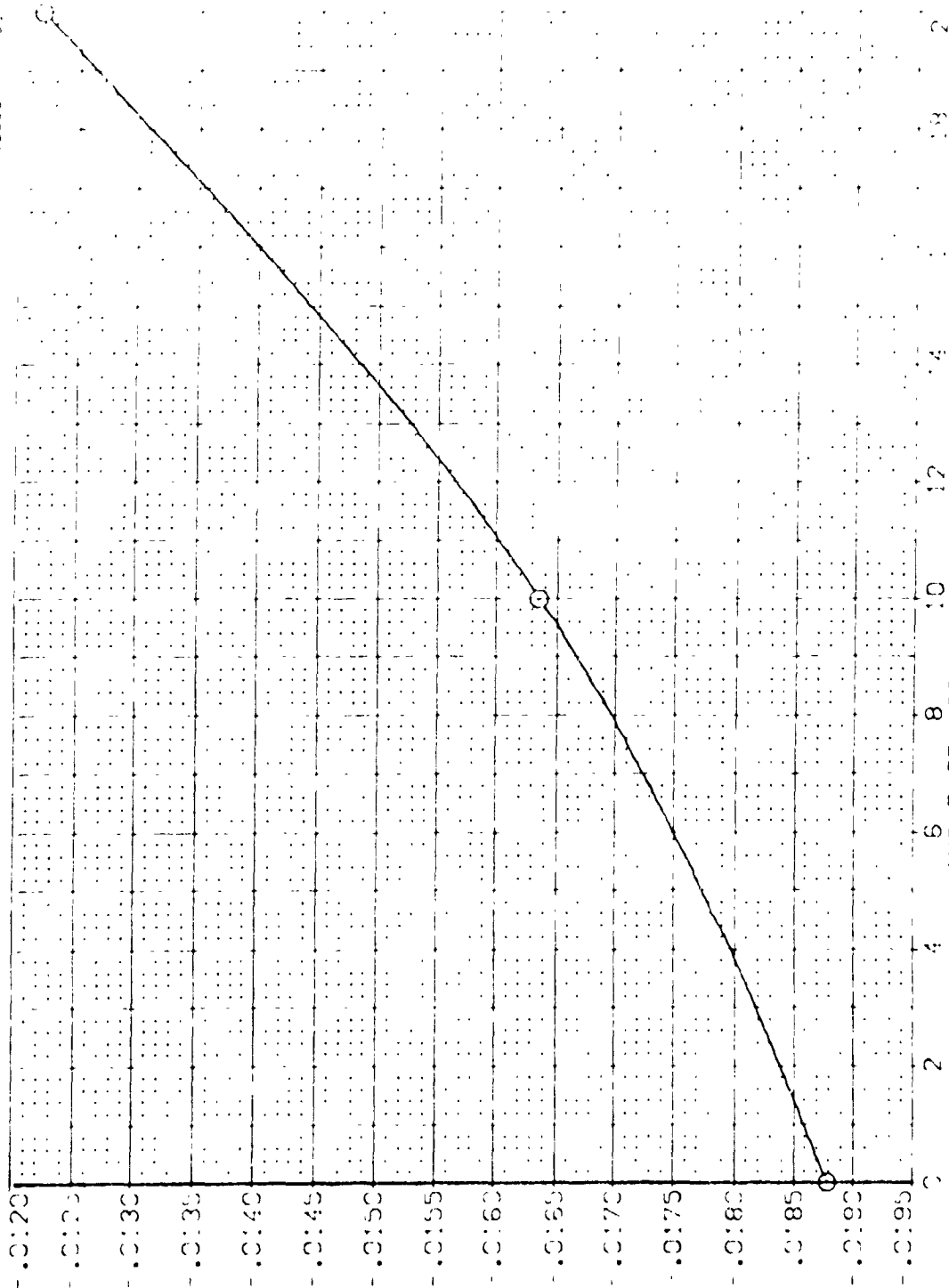
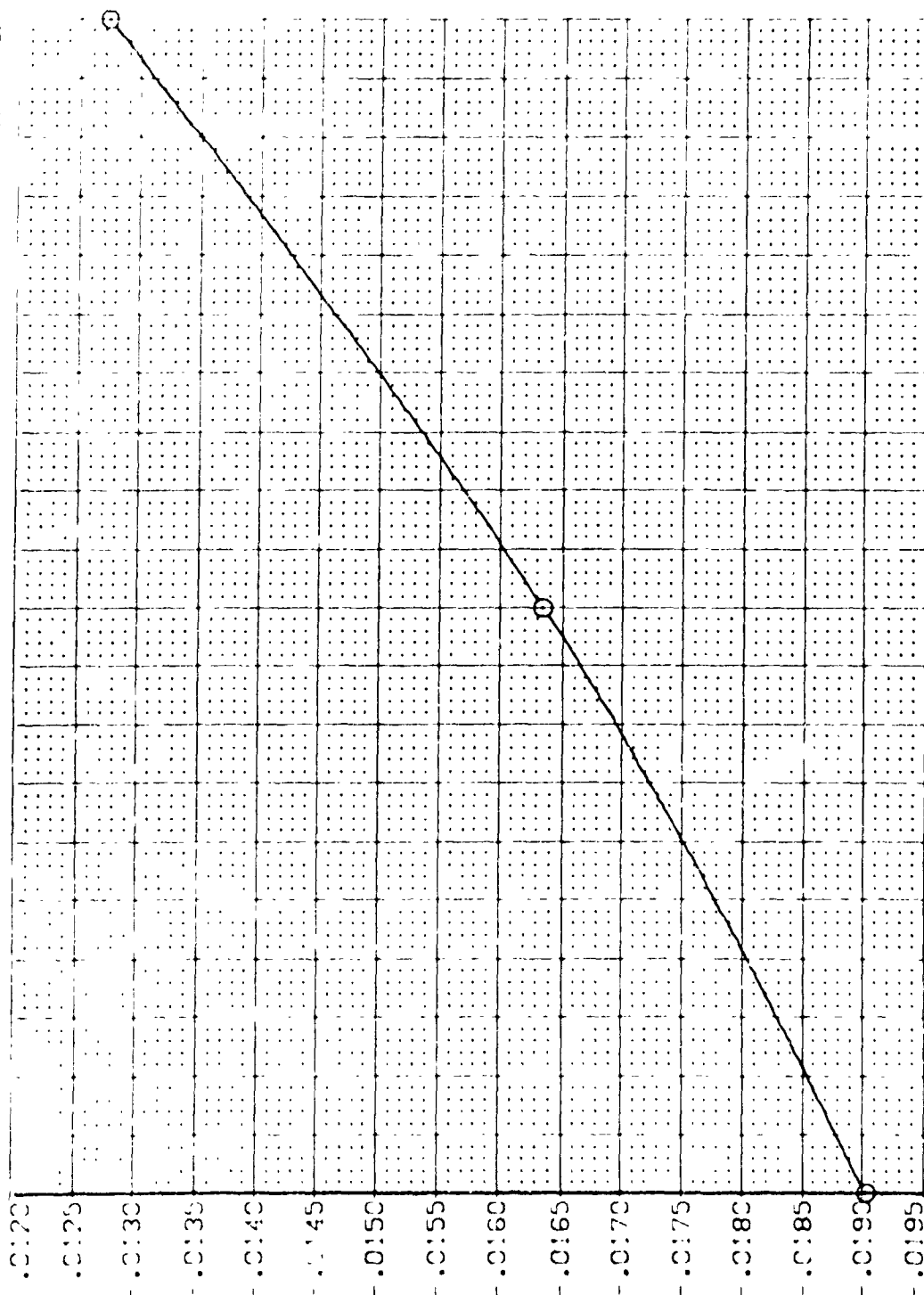


FIG. 16 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 3

(A. 39)

( ) ( ) ( ) ( ) ( )  
 ( ) ( ) ( ) ( ) ( )  
 ( ) ( ) ( ) ( ) ( )



SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

ARC 87-747 0A53C B C M F W: V NOM. R/V (A. 432)

PARAMETRIC VALUES  
 ELEVON .000 ALEPH .000  
 805LAP -11.700 SPUBOM 85.000 AELAP 39.000  
 RUDOR .000 ELEV .000  
 ELEV B .000

DATA SOURCE  
 ALPHA .000  
 AELORO 10.000

DATA  
 AELORO 10.000

DATA  
 AELORO 10.000

DATA  
 AELORO 10.000

DATA  
 AELORO 10.000

DATA  
 AELORO 10.000

DATA  
 AELORO 10.000

DATA  
 AELORO 10.000

DATA  
 AELORO 10.000

SIDE FORCE COEFFICIENT DERIVATIVE WITH BETA, CYBETA, PER DEGREE

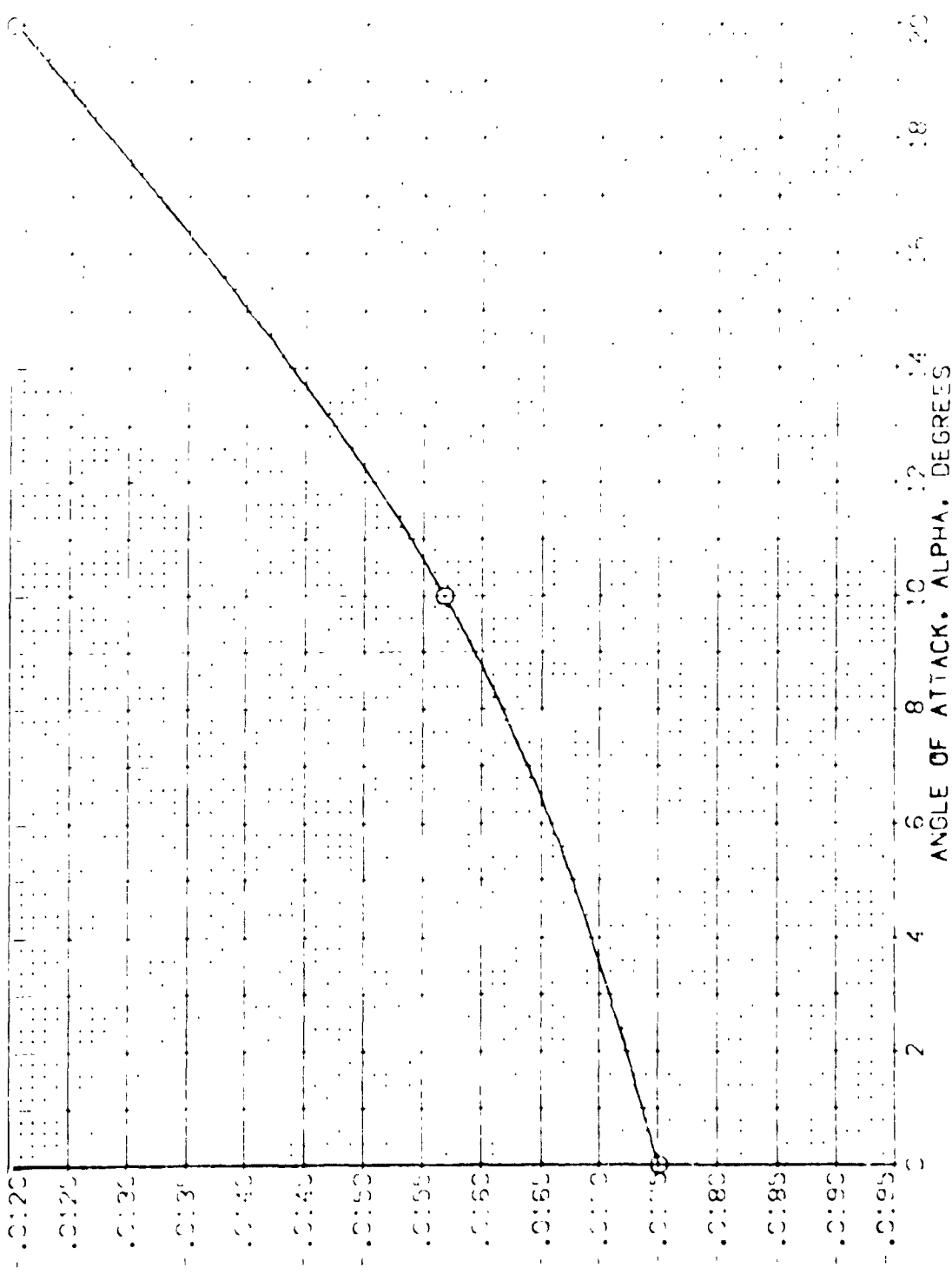


FIG. 16 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 3

一、  
 二、  
 三、  
 四、  
 五、  
 六、  
 七、  
 八、  
 九、  
 十、

1990

[illegible]

FIG. 16 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 3





YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

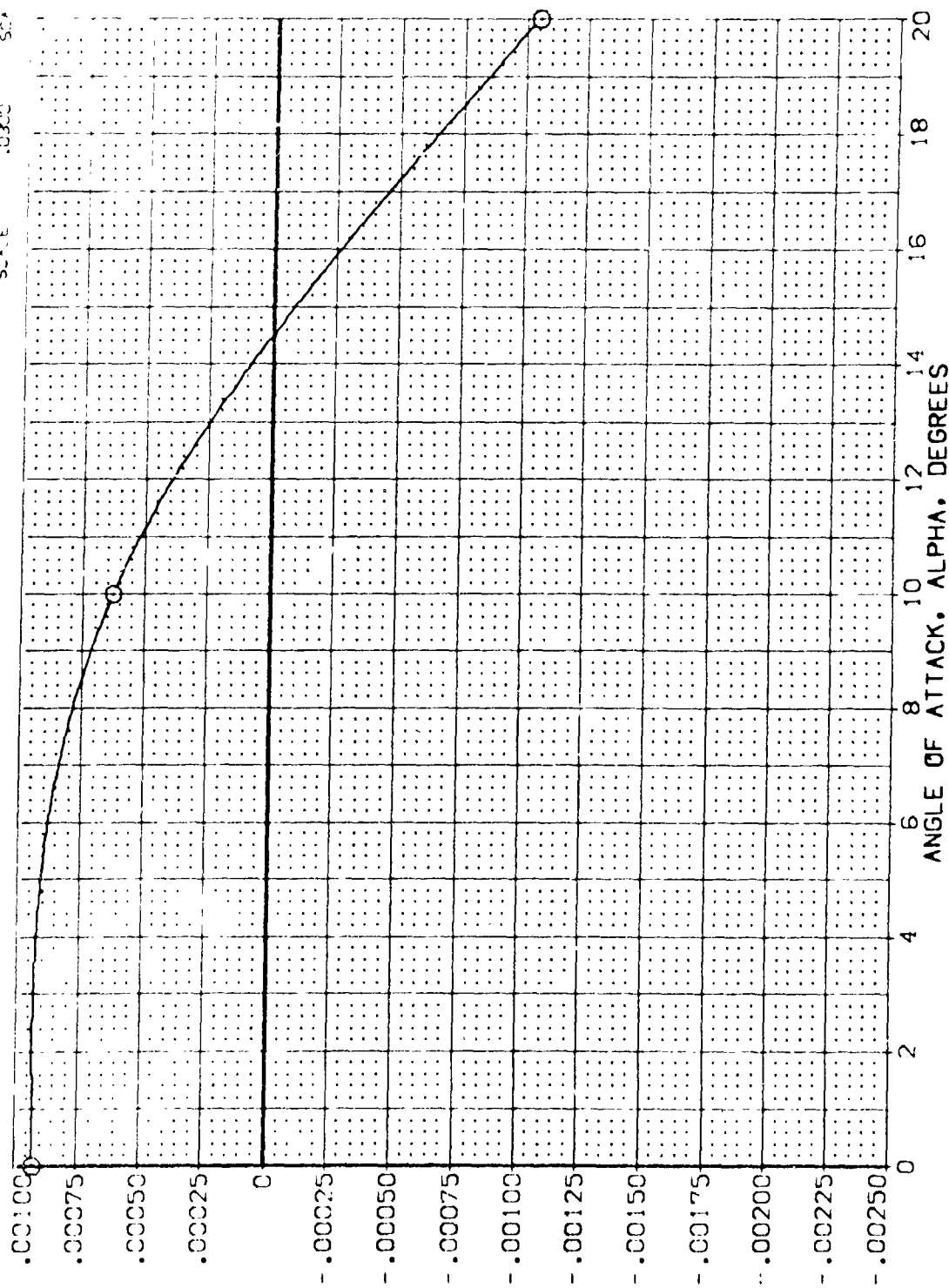


FIG. 16 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 3

ARC 87-747 OA53C B C M F W1 V NCM. RN/L (AE A39)

SYMBOL: ○ MACH: 2.498

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ELEVON	.000	AILRON	.000	DATA SET	ALPHA
BOFLAP	-11.700	SPOBRK	85.000	AELOH0	10.000
RUDDER	.000	ELEV L	.000	SCALE	10.000
ELEV-R	.000			SCALE	10.000

ROLLING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CO LBET, PER DEGREE

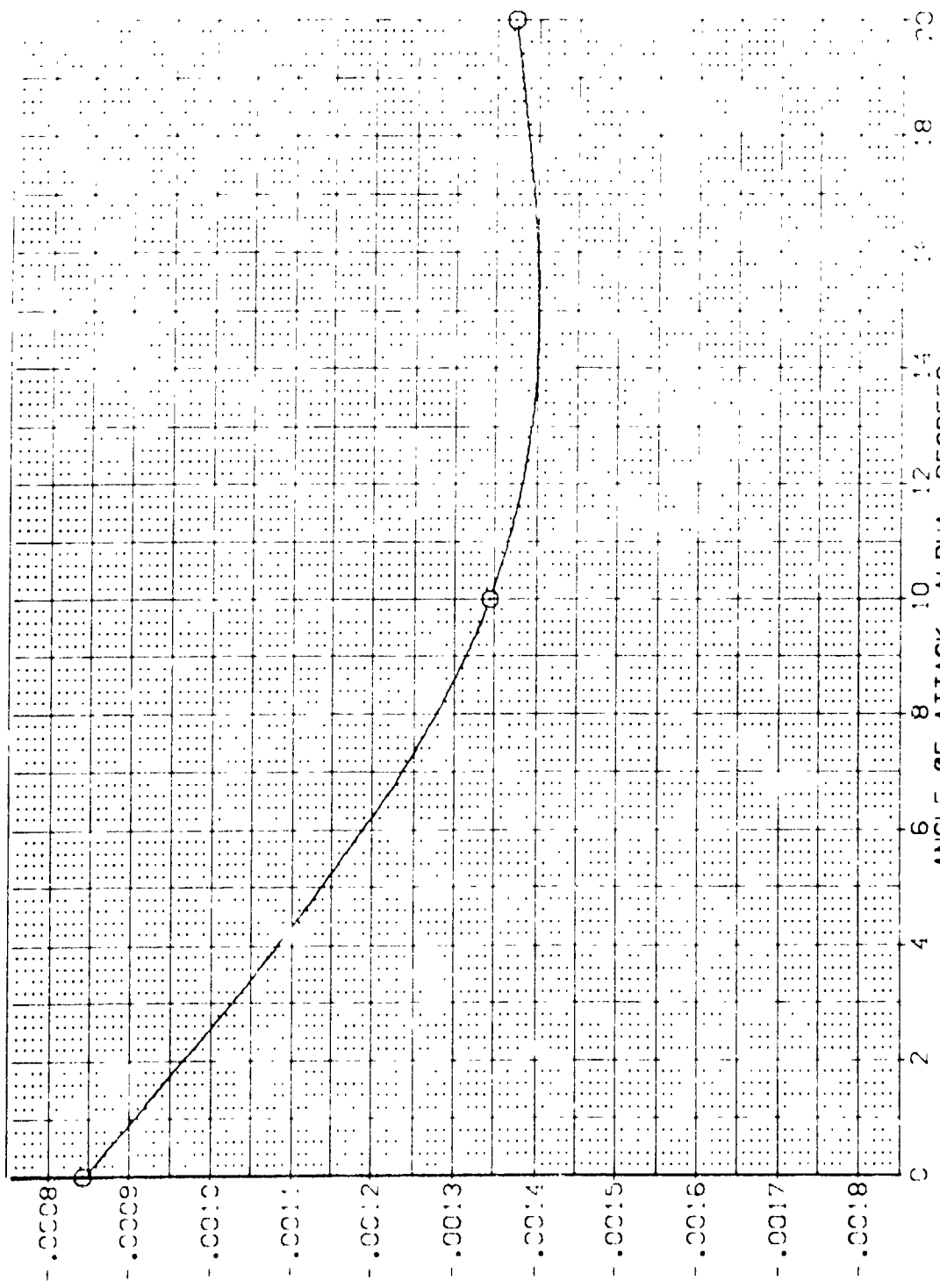


FIG. 16 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 3

(AEL A39)

I  
( )  
84  
1

PARAMETRIC VALUES	
A. RON	.000
SURGEON	.000
...	.000
...	.000

DATA SOURCE
ALPHA
.000
20.000

DATA\$  
AELO4C

505  
506  
507  
508  
509  
510

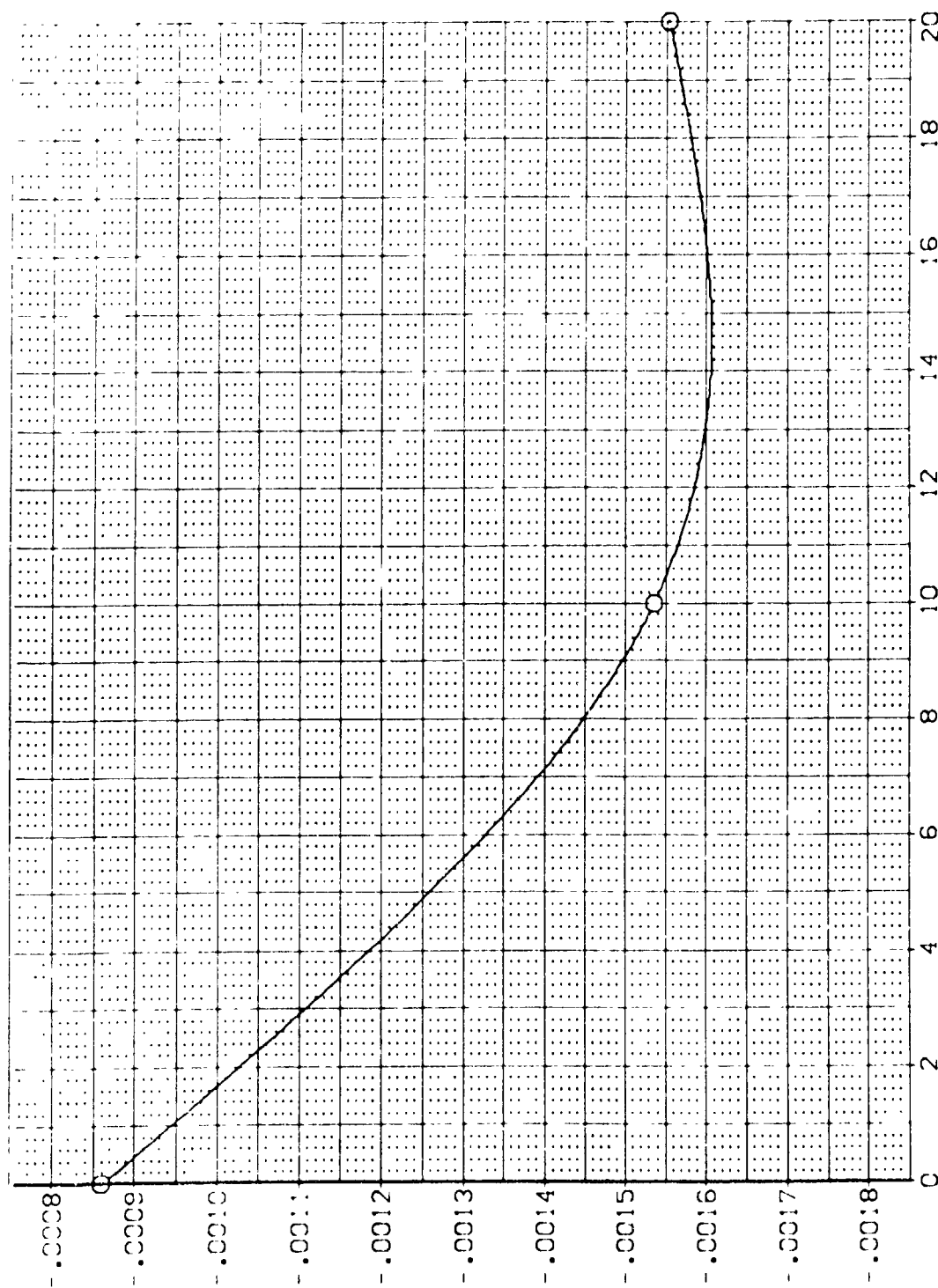
[illegible]

FIG. 16 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 3

(A: A 39)

3.49 MACH

3.49 MACH

PARAMETRIC VALUES

ELEVON  
SCALAP  
RUDDER  
ELEV-R

AIRPORT	.000
SPDRBK	-11.700
ELEV-L	.000
	.000

20.000  
ULPMA  
DATA 20

DATA SET  
AEL040

1000  
1000  
1000

REFERENCE INFORMATION

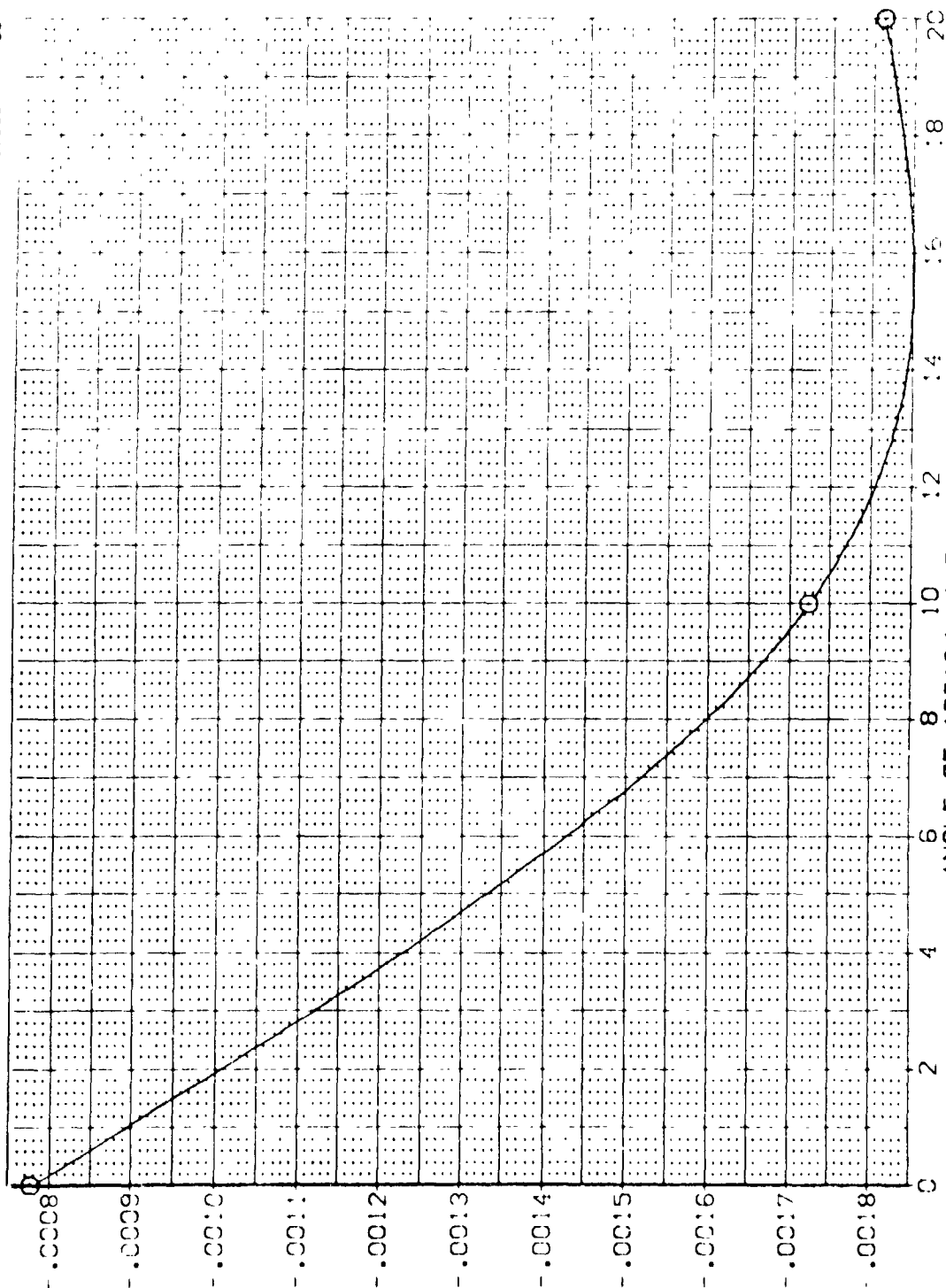


FIG. 16 LAT-DIR DERIVATIVES OF TOTAL VEHICLE-PART 3

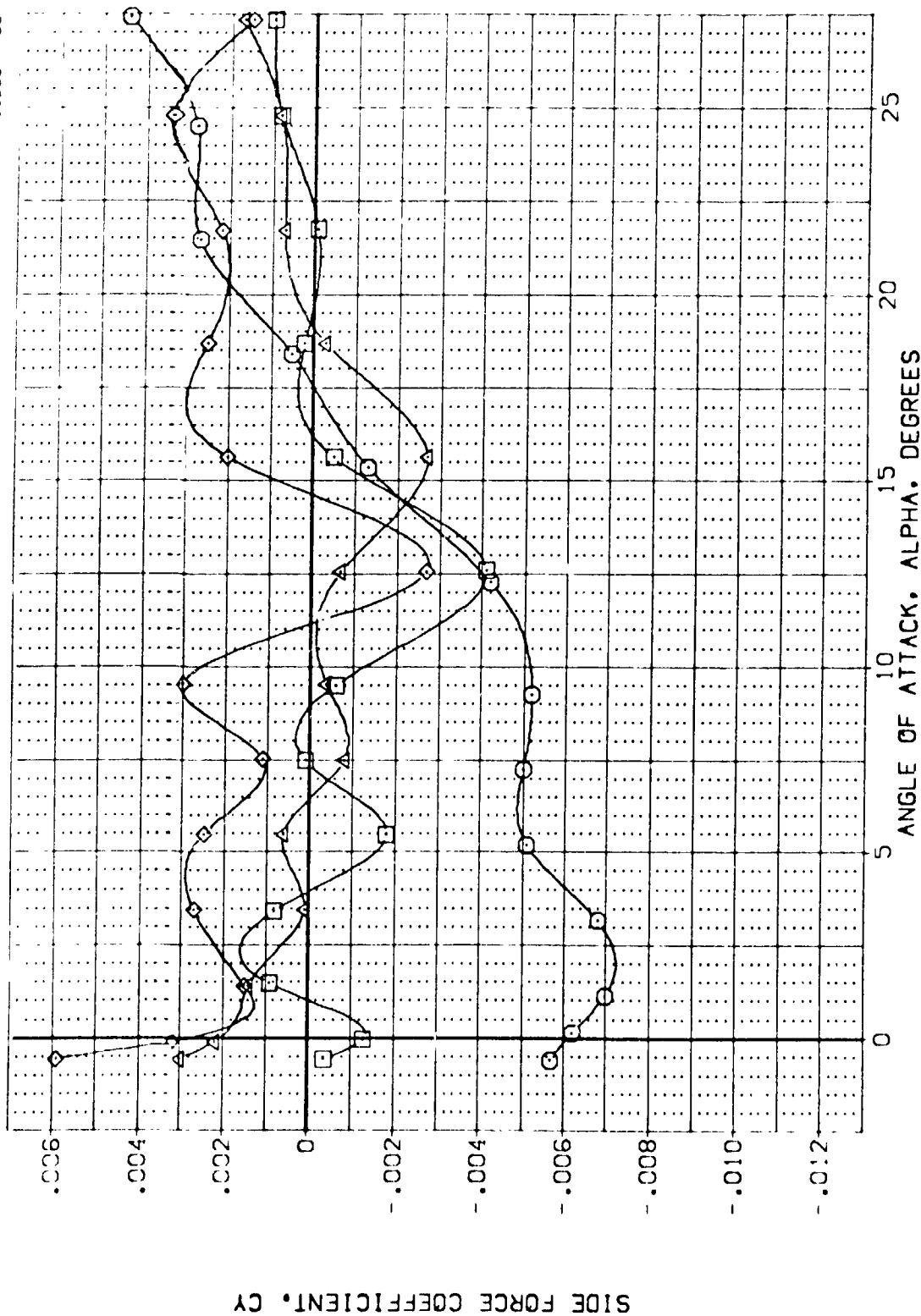
[illegible]

FIG. 17 AILERON EFFECTS

$$[A]_{\infty}AC^H = 2.50$$

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      AILERON      ELEVON      BOULAP      SPYDRK      REFERENCE INFORMATION

[AL 022]	ARC 87-747 BAS3C B C M F V	20.000	-20.000	-11.700	55.000	SRF	2.4210	SCALE
[AF 005]	ARC 87-747 BAS3C B C M F V	5.000	-10.000	-11.700	55.000	DAF	14.2350	SCALE
[AL 004]	ARC 87-747 BAS3C B C M F V	5.000	-10.000	-11.700	55.000	BAF	38.1304	SCALE
[AL 021]	ARC 87-747 BAS3C B C M F V	10.000	-10.000	-11.700	55.000	AMR	37.3010	SCALE
						AMR	0.000	SCALE
						ZMR	11.2500	SCALE
						SCALE	11.3300	SCALE

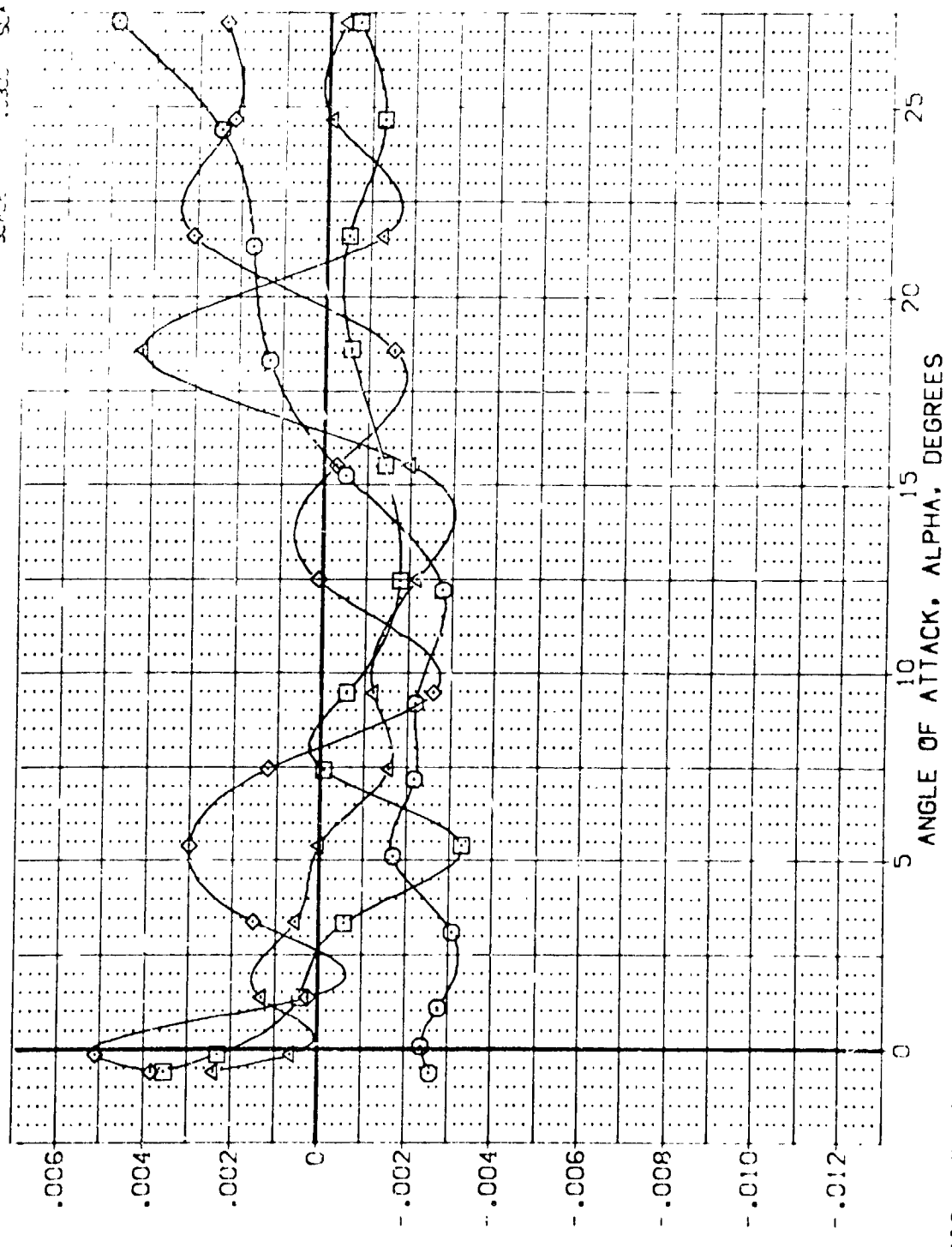


FIG. 17 AILERON EFFECTS  
(3) MACH = 3.00

DATA SET SYMBOL: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016, 017, 018, 019, 020, 021, 022, 023, 024, 025, 026, 027, 028, 029, 030, 031, 032, 033, 034, 035, 036, 037, 038, 039, 040, 041, 042, 043, 044, 045, 046, 047, 048, 049, 050, 051, 052, 053, 054, 055, 056, 057, 058, 059, 060, 061, 062, 063, 064, 065, 066, 067, 068, 069, 070, 071, 072, 073, 074, 075, 076, 077, 078, 079, 080, 081, 082, 083, 084, 085, 086, 087, 088, 089, 090, 091, 092, 093, 094, 095, 096, 097, 098, 099, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

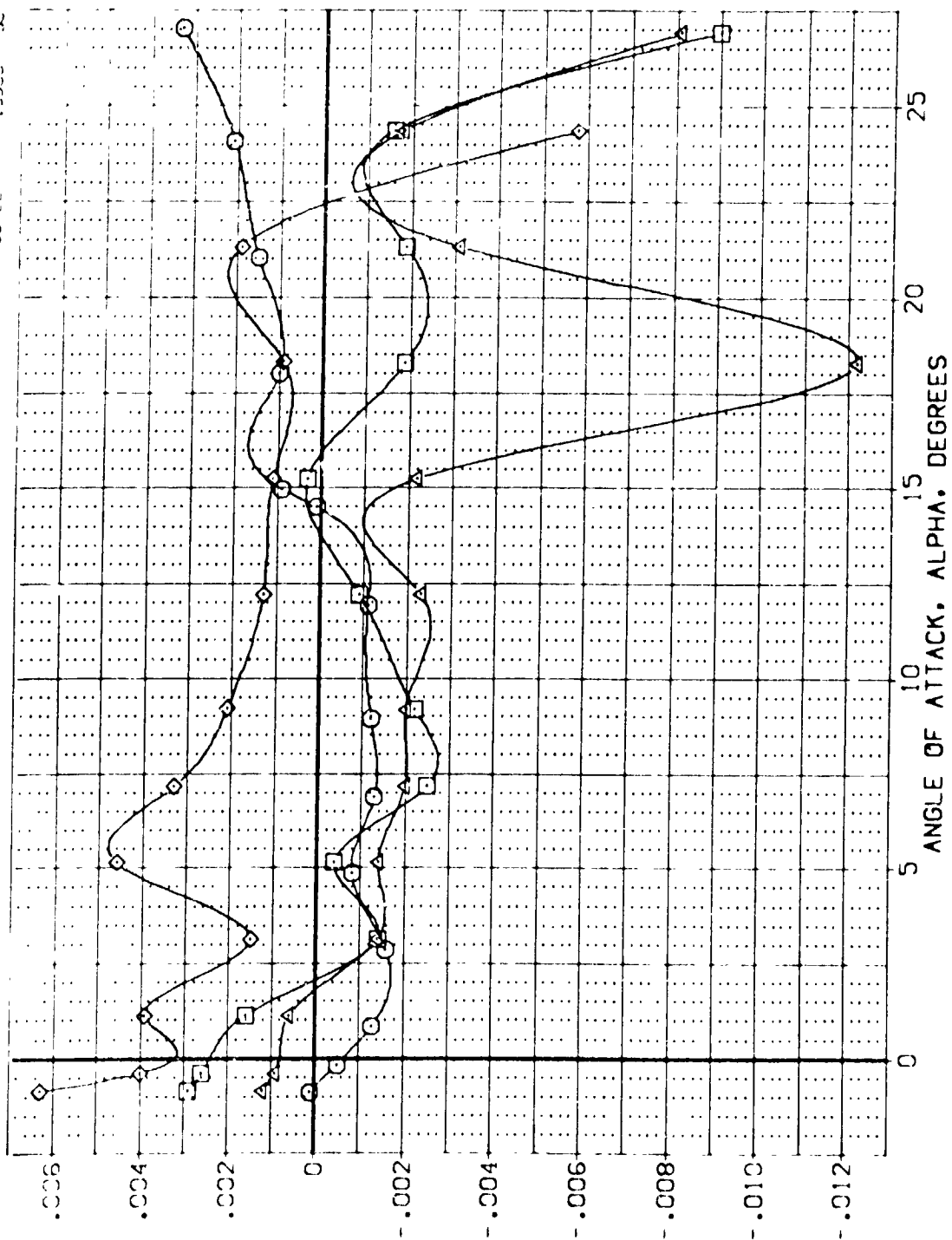
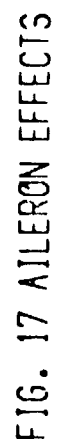


FIG. 17 AILERON EFFECTS

(C)MAC = 3.50



[illegible]
$$[A]_{MACH} = 2.50$$

DATA SET SYMBOL: CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
ABC 87-747	CAUSE B C M F V	SPREF 2.4210 SC.FT.
ABC 37-747	CAUSE B C M F V	LRREF 14.2440
ABC 87-747	CAUSE B C M F V	BRREF 28.1100
ABC 87-747	CAUSE B C M F V	XRREF 32.3110
		YRREF 0.0000
		ZRREF 11.2500
		SCALE 0.0000

AILERON ELEVON BOE LAP SPOBARK

AILERON	ELEVON	BOE LAP	SPOBARK
20.000	-20.000	-11.700	55.000
5.000	-10.000	-11.700	55.000
5.000	-10.000	-11.700	55.000
10.000	-10.000	-11.700	55.000

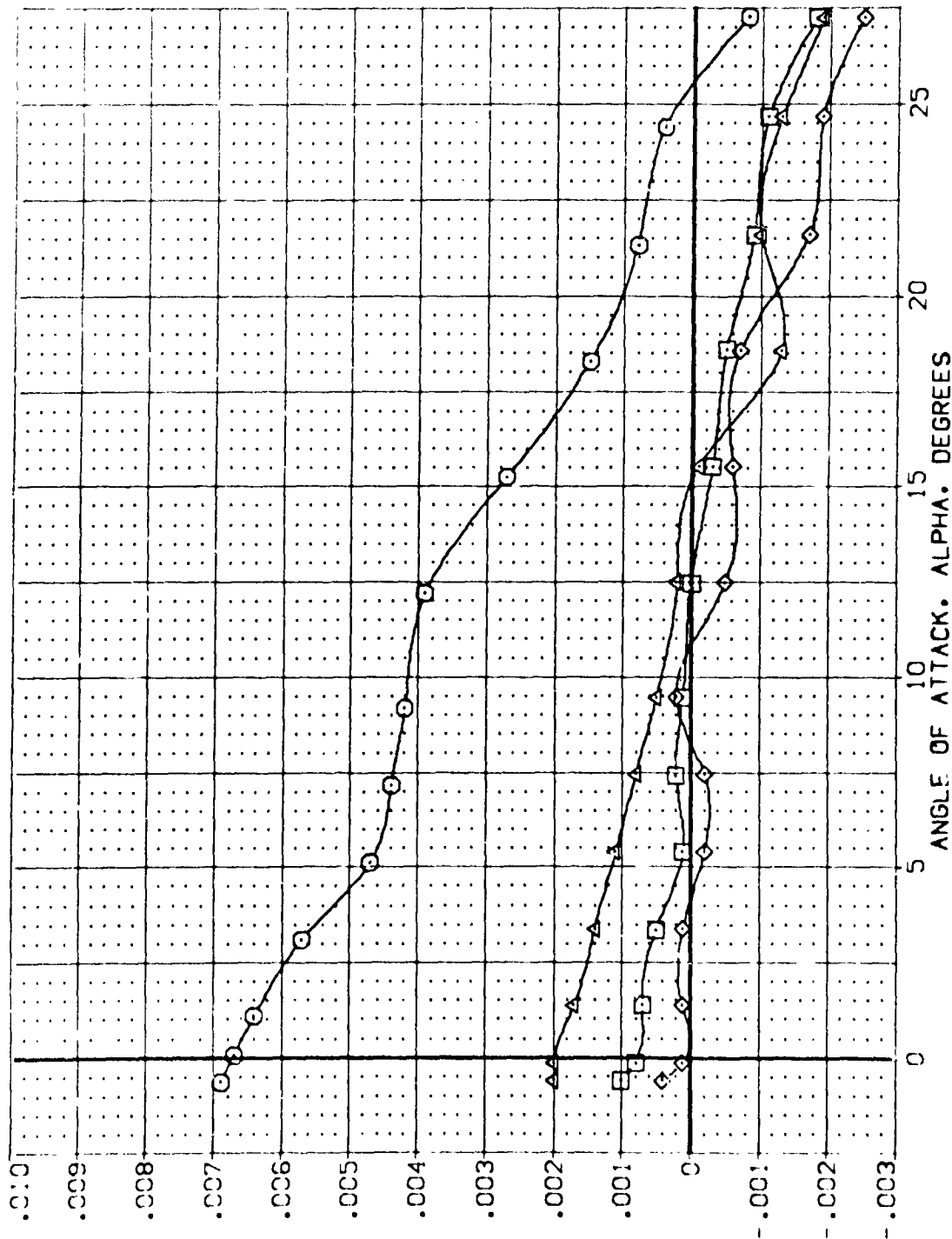


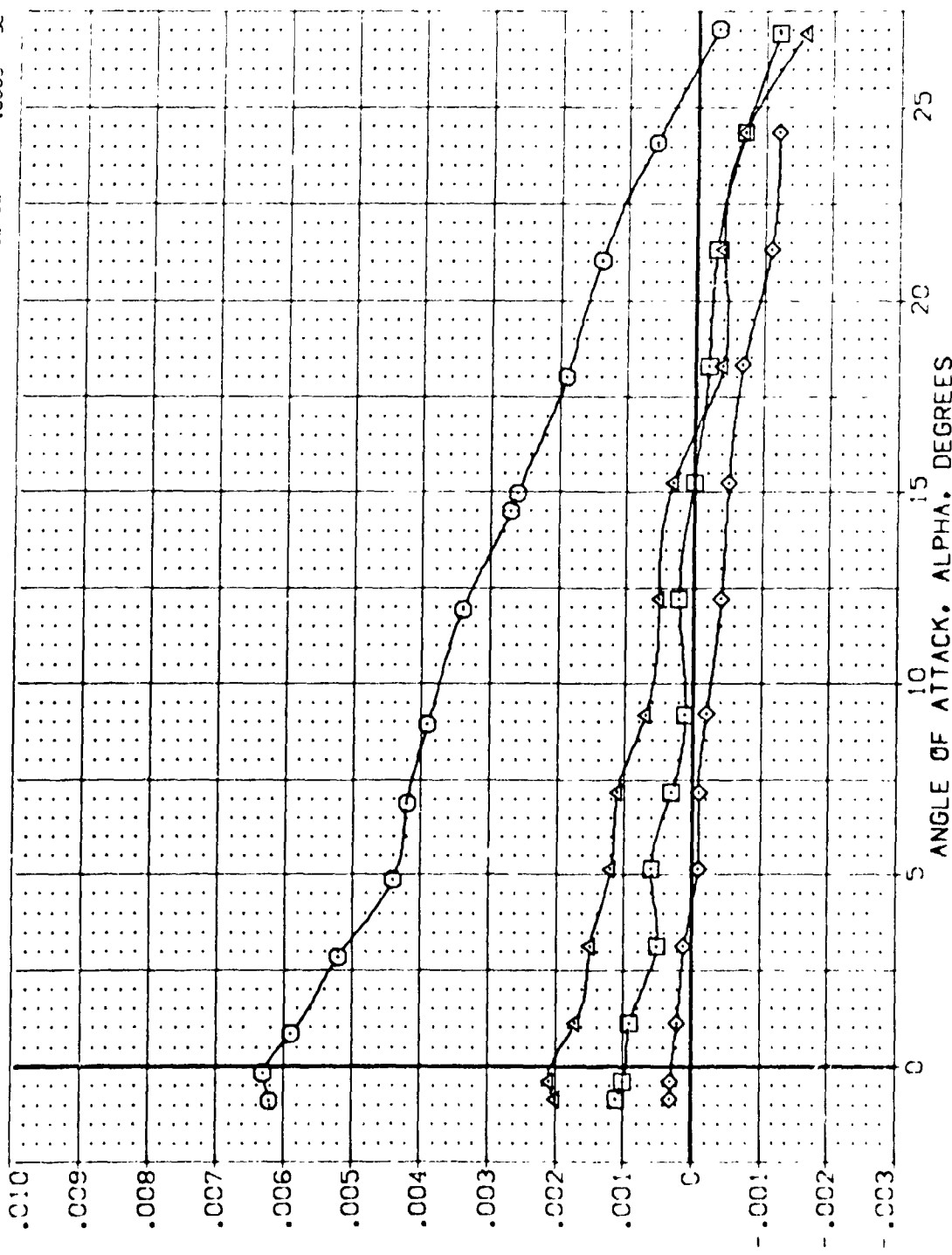
FIG. 17 AILERON EFFECTS

(3)  $\gamma_{AC-1} = 3.00$

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    AILERON    ELEVON    BOFLAP    SPODBK    REFERENCE IN ORDINATE

(AEL022)	ARC 87-747 CA53C B C M F VI	20.000	-20.000	-11.700	55.000	SPRF 2.4210
(AEL005)	ARC 87-747 CA53C B C M F VI	5.000	-10.000	-11.700	55.000	SPRF 14.2440
(AEL004)	ARC 87-747 CA53C B C M F VI	5.000	-10.000	-11.700	55.000	SPRF 28.1004
(AEL001)	ARC 87-747 CA53C B C M F VI	10.000	-10.000	-11.700	55.000	SPRF 32.3010

YMRP 0.0000    ZMRP 11.2500    SCALE 0.0000



YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

FIG. 17 AILERON EFFECTS

COMAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVON	BOX LAP	SPOON	REFERENCE INFORMATION
AL-002	ARC 87-747 3A53C B C M F V	20.000	-20.000	-11.700	55.000	SHIFT 2.4312 SCALE
AL-003	ARC 87-747 3A53C B C M F V	5.000	-10.000	-11.700	55.000	SCALE 14.2340
AL-004	ARC 87-747 3A53C B C M F V	5.000	0.000	-11.700	55.000	SCALE 28.1300
AL-005	ARC 87-747 3A53C B C M F V	10.000	-10.000	-11.700	55.000	SCALE 32.3000
						SCALE 11.2000
						SCALE 11.2000

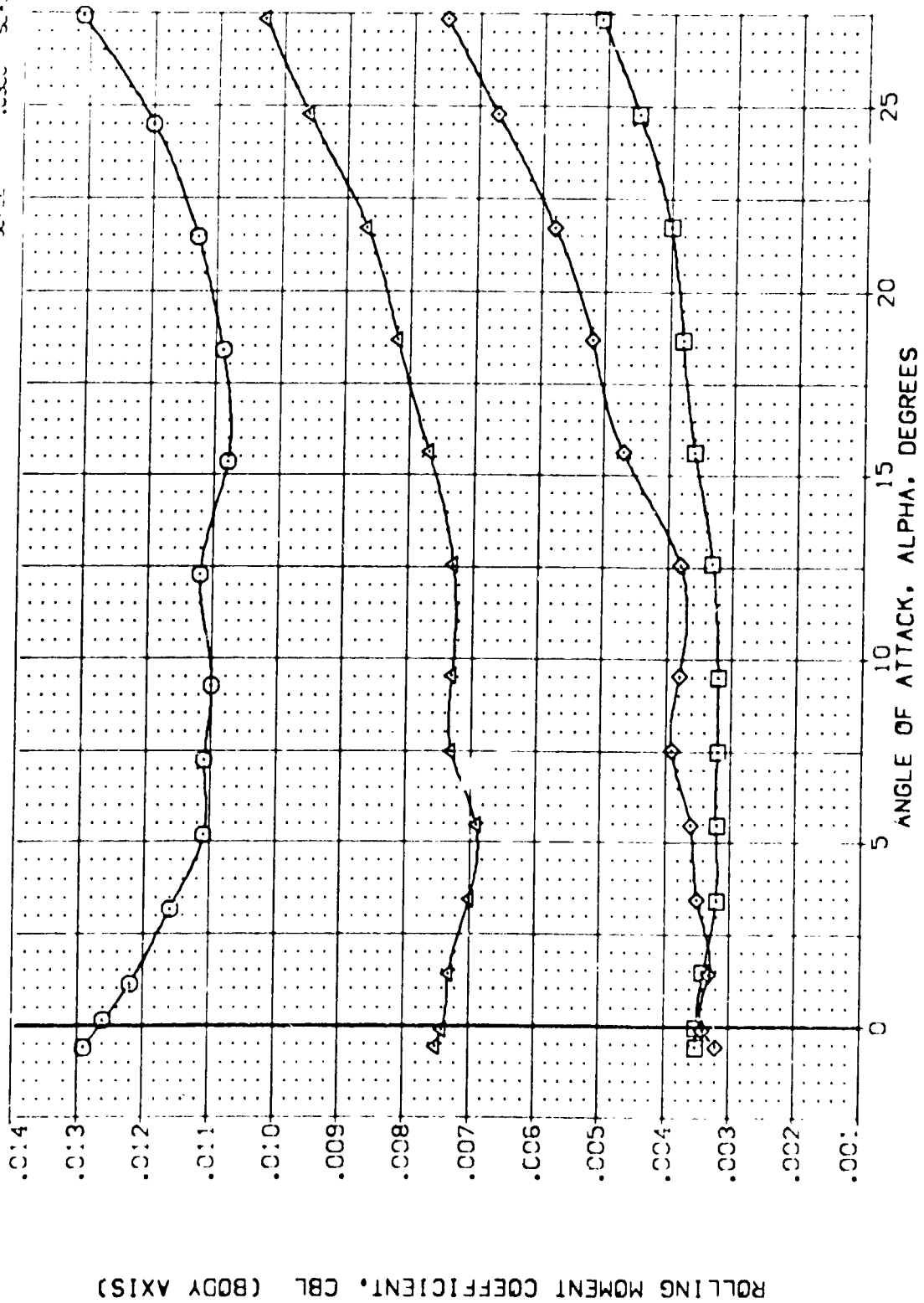


FIG. 17 AILERON EFFECTS

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVON	BOFLAP	SPDRBK	REFERENCE INFORMATION
[AEL022]	ARC 87-747 BAS3C B C M F V	20.000	-20.000	-11.700	55.000	SREF 2.4210
[AEL005]	ARC 87-747 BAS3C B C M F V	5.000	-10.000	-11.700	55.000	SREF 14.2440
[AEL004]	ARC 87-747 BAS3C B C M F V	10.000	-10.000	-11.700	55.000	SREF 28.1004
[AEL003]	ARC 87-747 BAS3C B C M F V	10.000	-10.000	-11.700	55.000	SREF 37.3510
						YREF 0.0000
						ZREF 0.0000
						SCALE 1.0000
						SCALE 1.0000

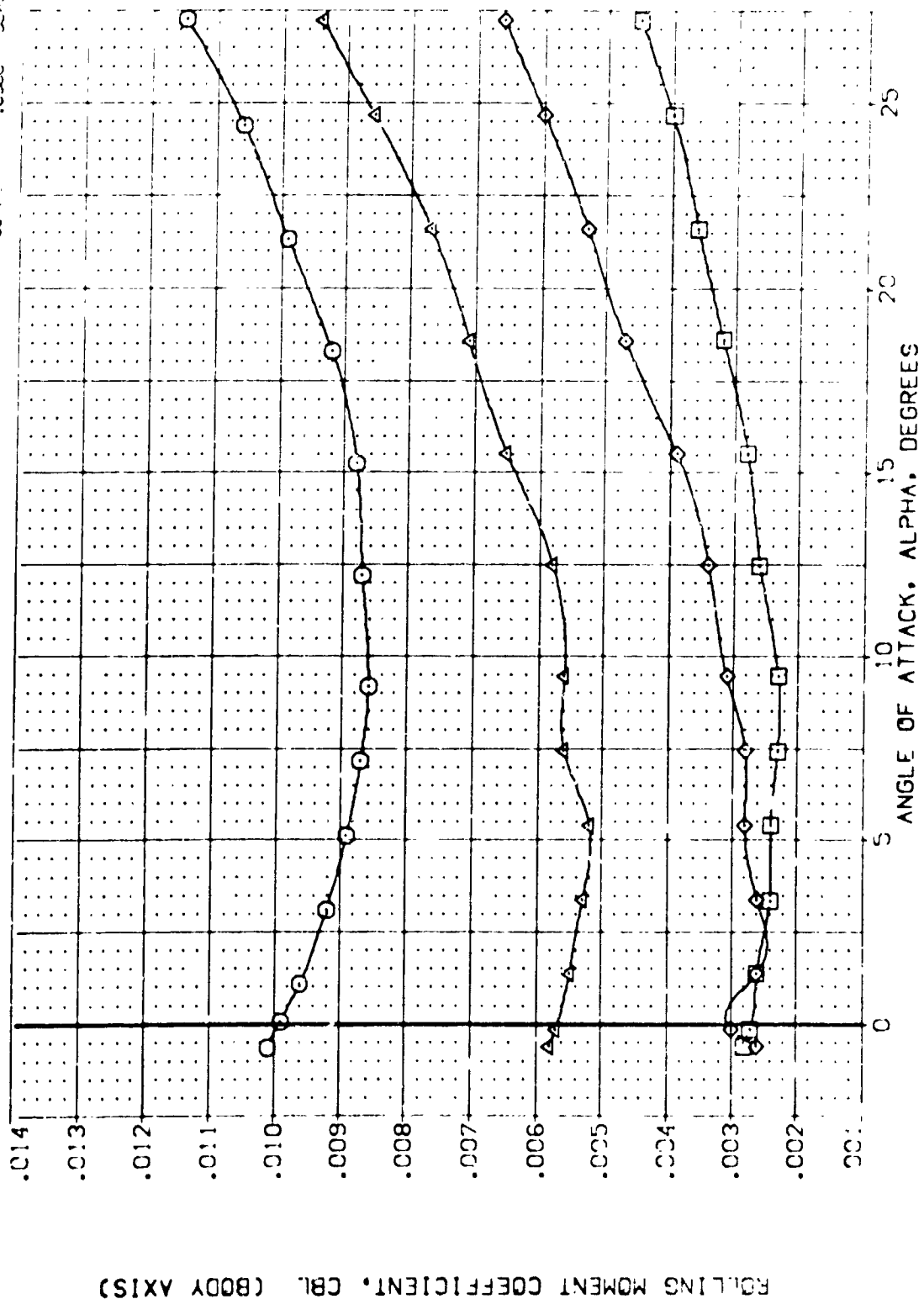


FIG. 17 AILERON EFFECTS

(3) MACH = 3.00

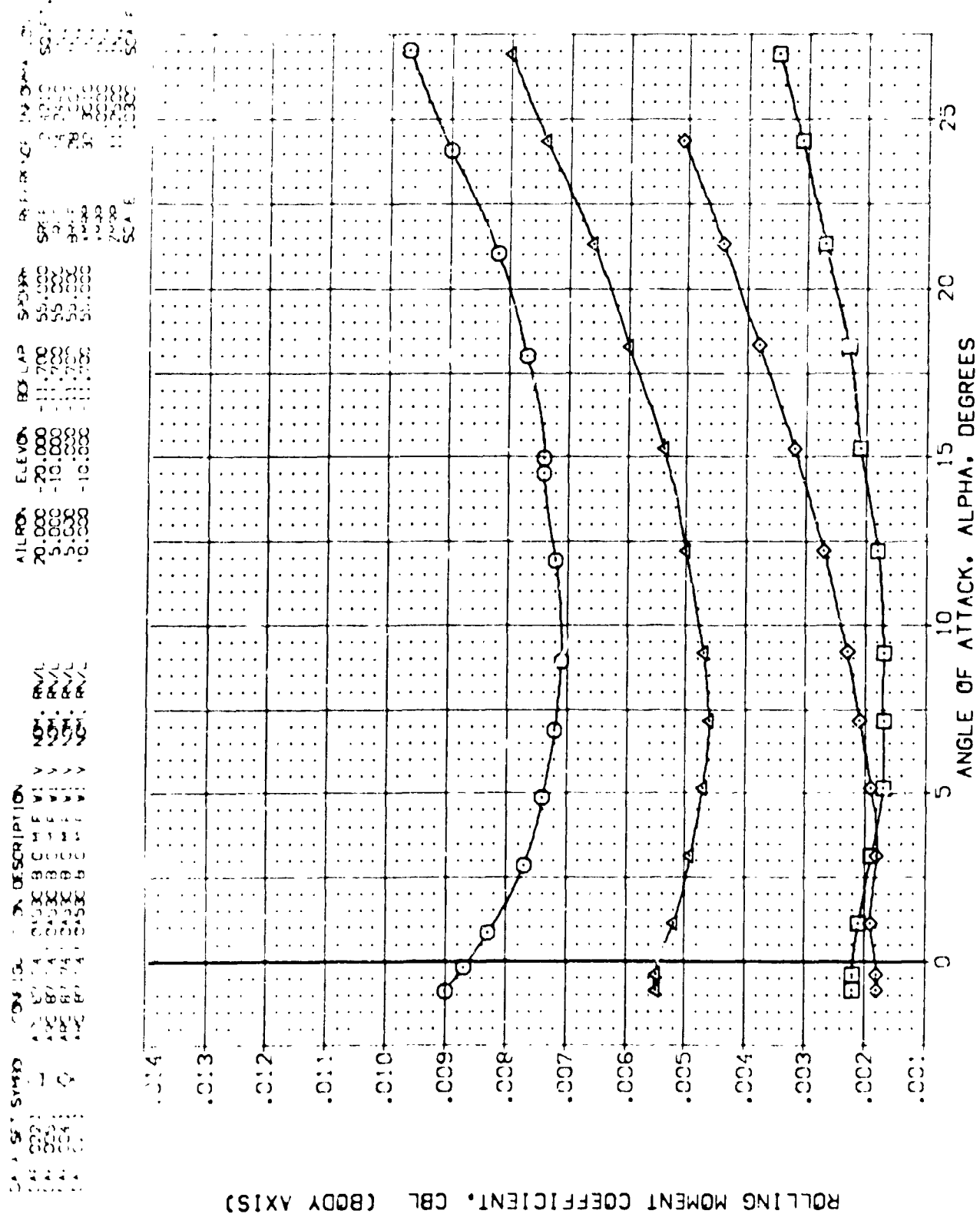


FIG. 17 AILERON EFFECTS

(C) VAC	=	3.50
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SIDE FORCE DUE TO AILERON, DCY/DA, PER DEGREE



9  
0  
C

C  
S  
2  
A  
L

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DA	ELEVON	BOX LAP	SPEED	REFERENCE INFORMATION
001	87-747 0453C B C M F V	20.000	-20.000	-11.700	55.000	Scale
002	87-747 0453C B C M F V	5.000	-10.000	-11.700	55.000	Scale
003	87-747 0453C B C M F V	5.000	-10.000	-11.700	55.000	Scale
004	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
005	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
006	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
007	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
008	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
009	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
010	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
011	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
012	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
013	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
014	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
015	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
016	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
017	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
018	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
019	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale
020	87-747 0453C B C M F V	10.000	-10.000	-11.700	55.000	Scale

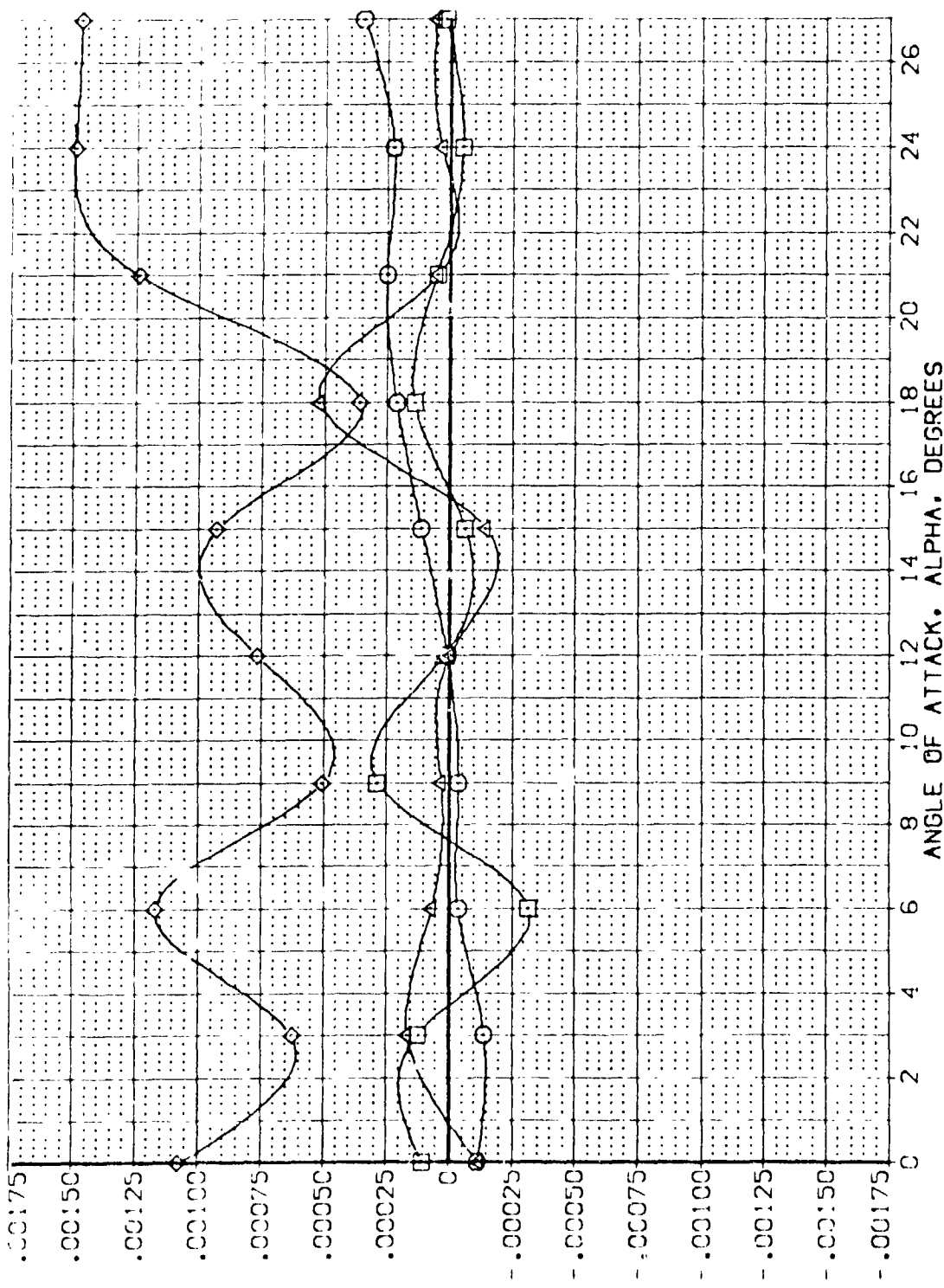


FIG. 18 AILERON EFFECTIVENESS DERIVATIVES

(B) MAC = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DA	ELEVON	BOELAP	SPD00K	REFERENCE INFORMATION
(VE-022)	ARC 87-747 0:53C B C M F V	20.000	-20.000	-11.700	35.000	SR-1 3.4210
(VE-023)	ARC 87-747 0:53C B C M F V	5.000	-10.000	-11.700	55.000	SR-1 3.4210
(VE-024)	ARC 87-747 0:53C B C M F V	5.000	-10.000	-11.700	55.000	SR-1 3.4210
(VE-025)	ARC 87-747 0:53C B C M F V	10.000	-10.000	-11.700	55.000	SR-1 3.4210

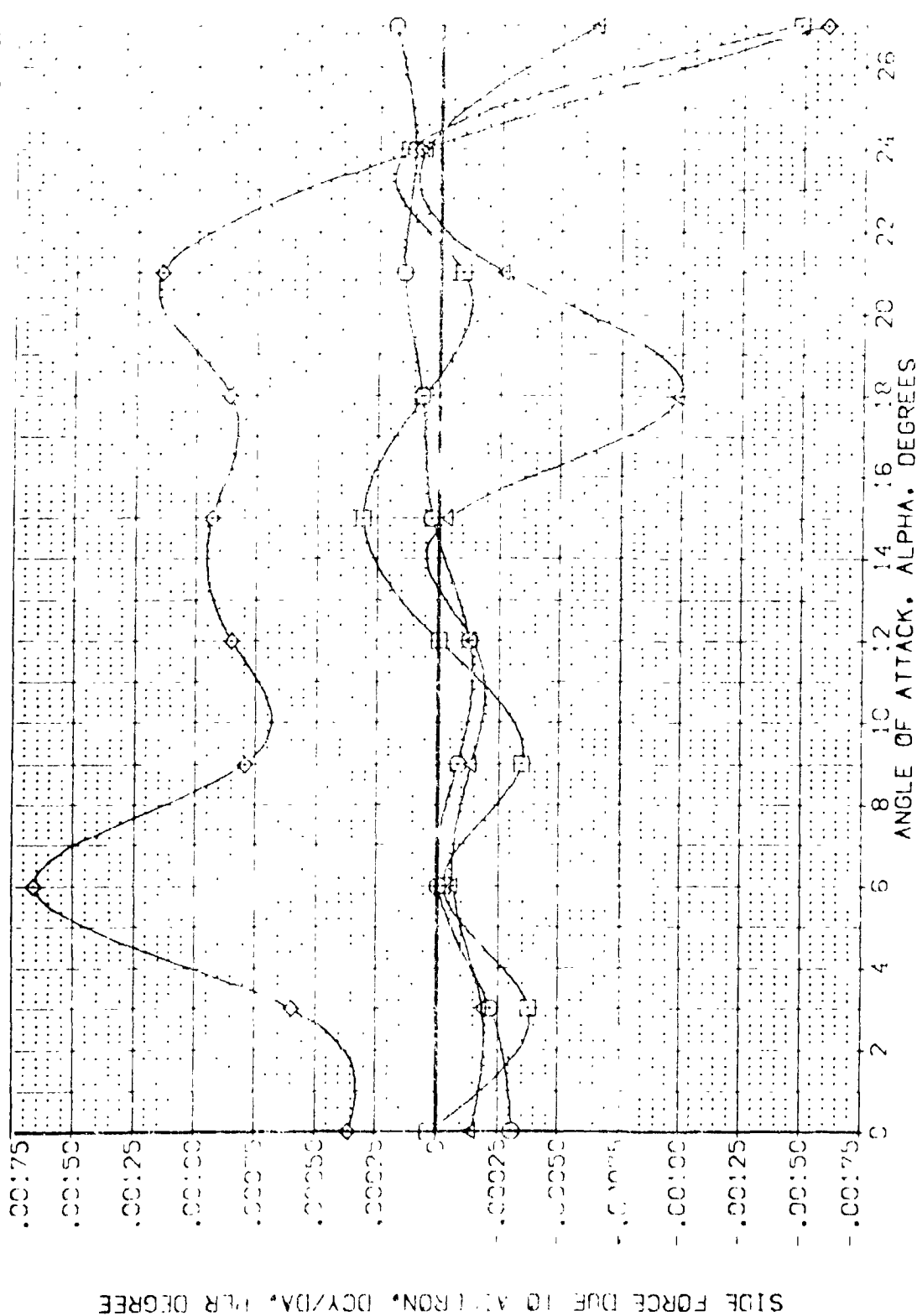


FIG. 18 AILERON EFFECTIVENESS DERIVATIVES

(C)MAC = 3.50

DATA SET SYMBOL CONFIG. DESCRIPTION

DATA SET SYMBOL	CONFIG.	DESCRIPTION	DA	ELEVON	BOFLAP	SPDRBK	REFERENCE	INTEGRATION
(VEL022)	87-747	ARC	20.000	-20.000	-11.700	55.000	SREF	2.4210
(VEL003)	87-747	ARC	5.000	-10.000	-11.700	55.000	LREF	13.7210
(VEL004)	87-747	ARC	5.000	-10.000	-11.700	55.000	BREF	28.1000
(VEL021)	87-747	ARC	10.000	-10.000	-11.700	55.000	YMRP	32.3010
							YMRP	0.0000
							ZMRP	11.7500
							SCALE	.0300

YAWING MOMENT DUE TO AILERON, DCYNDA, PER DEGREE, (BODY AXIS)

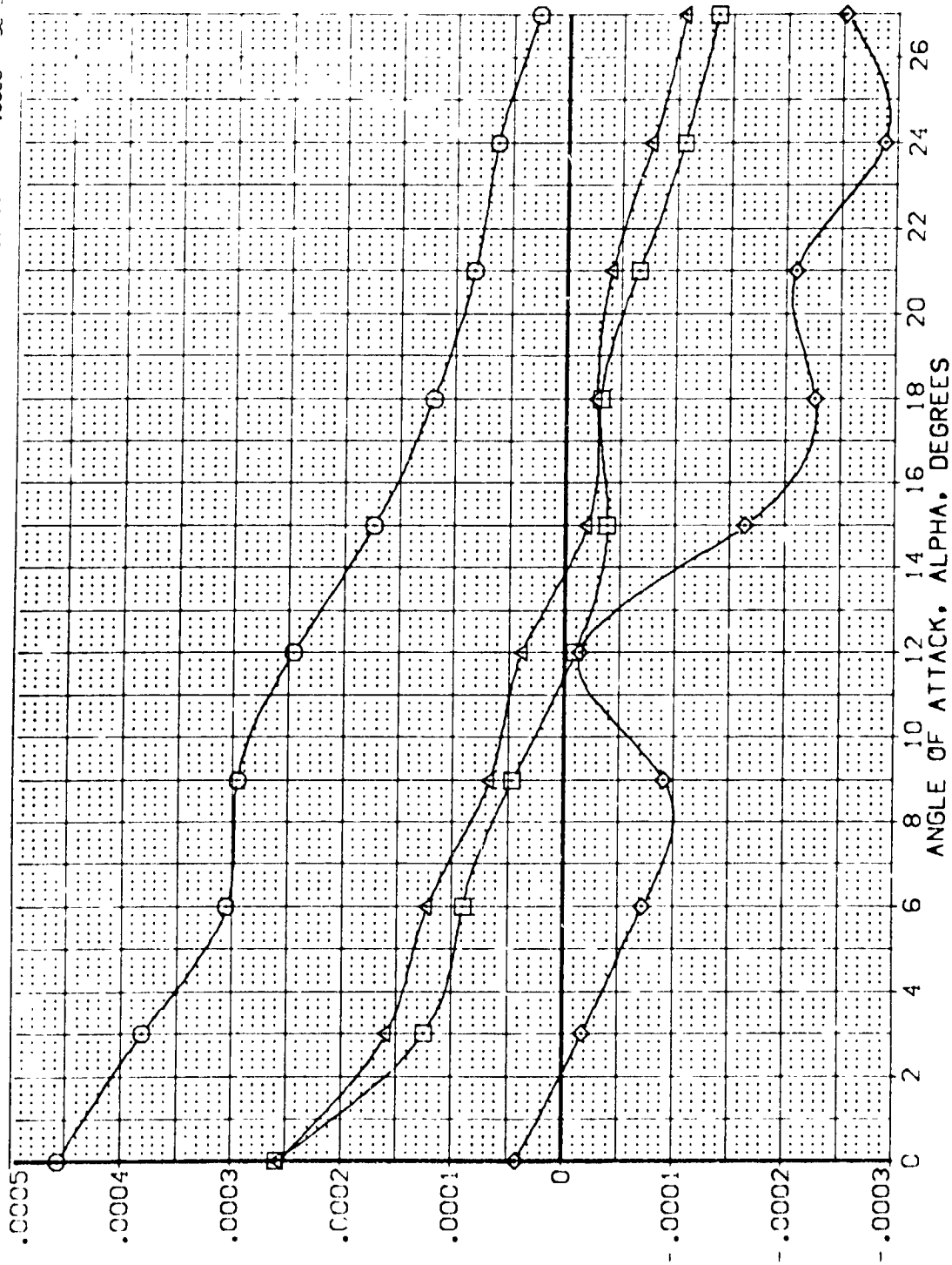


FIG. 18 AILERON EFFECTIVENESS DERIVATIVES

(A)MACH = 2.50

DATA SET SYMBOL. CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DA	ELEVON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VEL022)	ARC 87-747 OAS3C B C M F V	20.000	-20.000	-11.700	55.000	SREF 2.42 0 SCAL
(VEL023)	ARC 87-747 OAS3C B C M F V	5.000	-10.000	-11.700	55.000	SREF 14.71 0 SCAL
(VEL024)	ARC 87-747 OAS3C B C M F V	5.000	-10.000	-11.700	55.000	SREF 76.30 0 SCAL
(VEL021)	ARC 87-747 OAS3C B C M F V	10.000	-10.000	-11.700	55.000	SREF 30.30 0 SCAL

YAWD 2.000  
SCALE 10.000

YAWING MOMENT DUE TO AILERON, DCYNDA, PER DEGREE, (BODY AXIS)

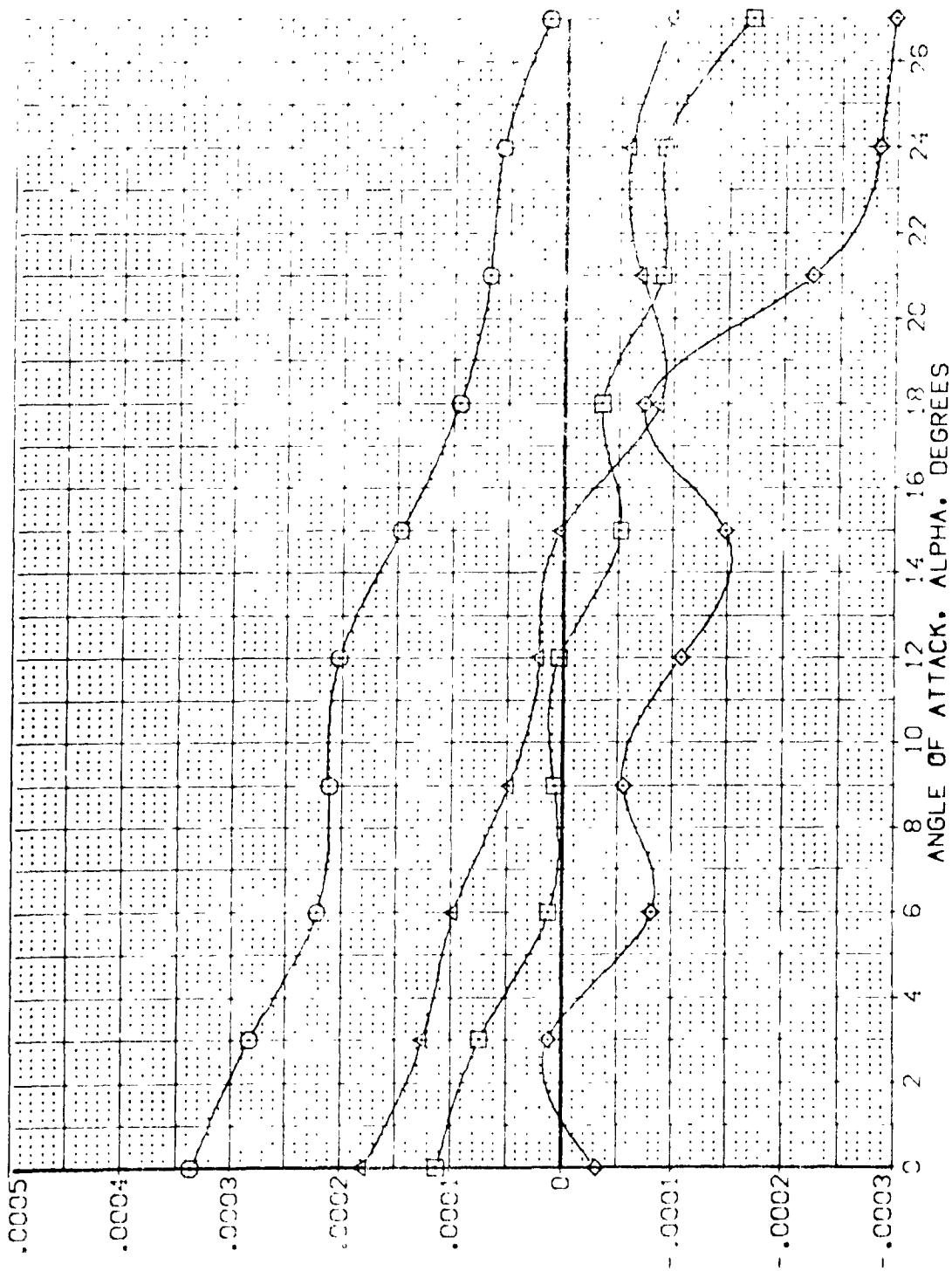


FIG. 18 AILERON EFFECTIVENESS DERIVATIVES

(B) VAC - 3.00

DATA SET SYMBOL	CONFIG	DESCRIPTION	DA	ELEVON	BOELAP	SPOBRK	REFERENCE INFORMATION
1.0000	ARC 8/-747	B C M F V	20.000	-20.000	-11.700	55.000	SREF 2.4210
2.0000	ARC 8/-747	B C M F V	5.000	-10.000	-11.700	55.000	LRLE 14.2440
3.0000	ARC 8/-747	B C M F V	5.000	.000	-11.700	55.000	BRLE 33.0000
4.0000	ARC 8/-747	B C M F V	10.000	-10.000	-11.700	55.000	XRLE 33.3510
							YMRP .0000
							ZMRP .0000
							SCALE 11.0000
							SCALE

YAWING MOMENT DUE TO AILERON, DCYNDA, PER DEGREE, (BODY AXIS)

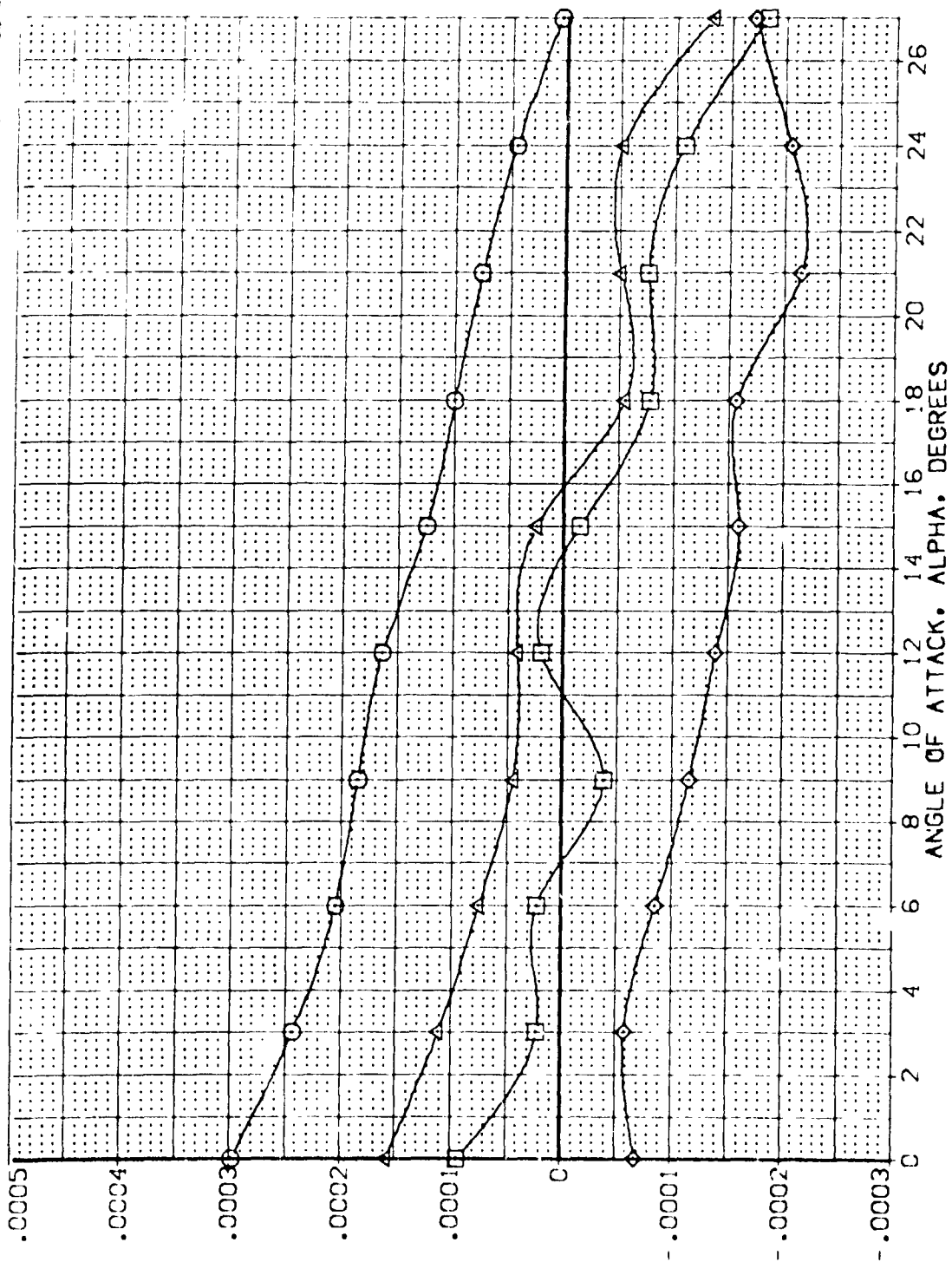


FIG. 18 AILERON EFFECTIVENESS DERIVATIVES

(C)MACH = 3.50

ROLLING MOMENT DUE TO AILERON, DCBLDA, PER DEGREE, (BODY AXIS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DA	ELEVON	BOFLAP	SPODBY	REFERENCE INFORMATION
[VELOC2]	ARC 87-747 OAS3C B C M F VI V	20.000	-20.000	-11.700	55.000	SCALE
[VELOC3]	ARC 87-747 OAS3C B C M F VI V	5.000	-10.000	-11.700	55.000	SCALE
[VELOC4]	ARC 87-747 OAS3C B C M F VI V	5.000	-10.000	-11.700	55.000	SCALE
[VELOC5]	ARC 87-747 OAS3C B C M F VI V	10.000	-10.000	-11.700	55.000	SCALE

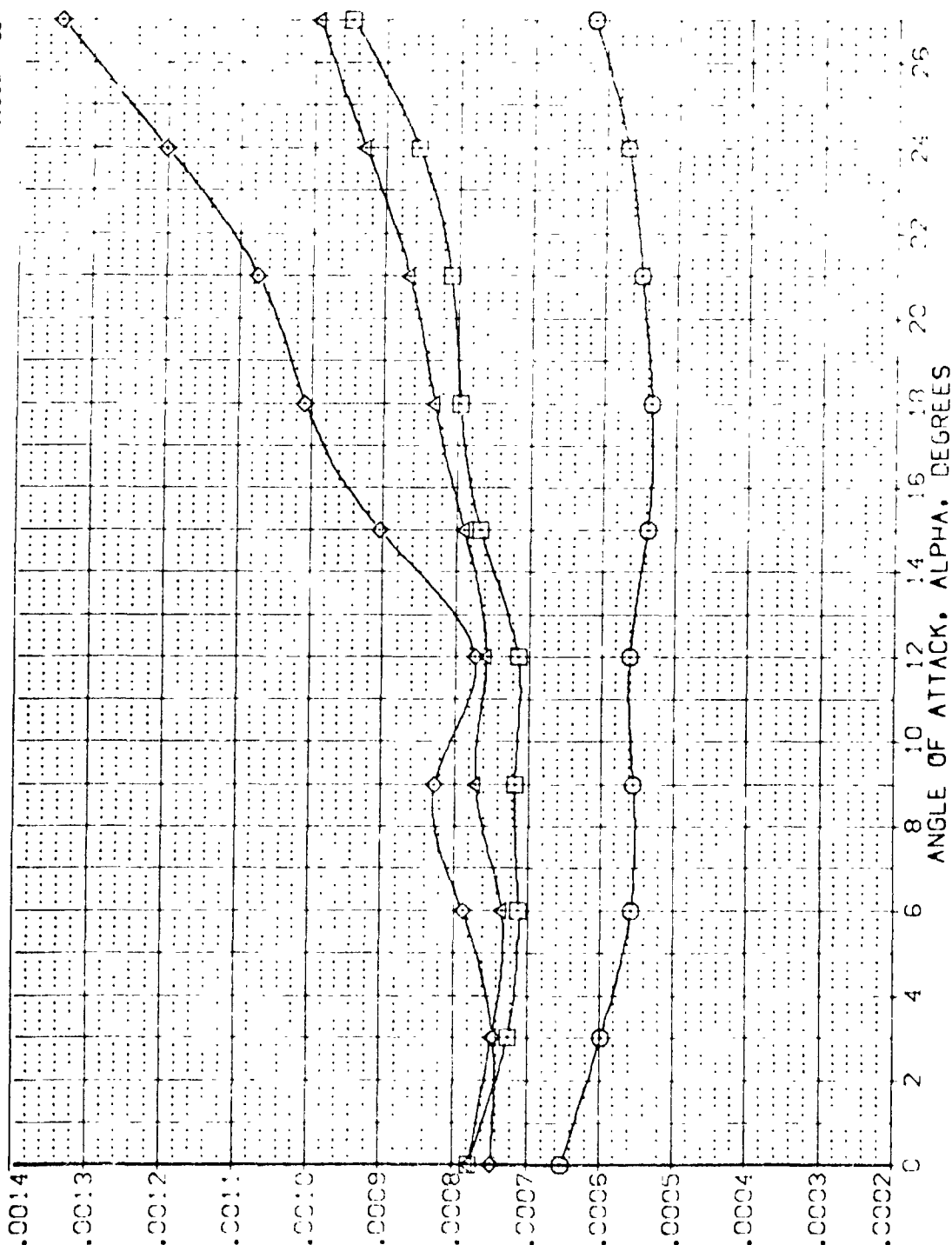


FIG. 18 AILERON EFFECTIVENESS DERIVATIVES

(4) MAC = 2.50

ROLLING MOMENT DUE TO AILERON, DEGBDA, PER DEGREE, (BODY AXIS)



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ROLLING MOMENT DUE TO AILERON, OCBLOA, PER DEGREE, (BODY AXIS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DA	ELEVON	BOF LAP	SPOOR	REFERENCE INFORMATION
[VELO72]	ARC 87-747 DAS3C B C M F VI	20.000	-20.000	-11.700	55.000	SRF 2.4210 SQ.FT.
[VELO05]	ARC 87-747 DAS3C B C M F VI	5.000	-10.000	-11.700	55.000	SRF 1.7440
[VELO34]	ARC 87-747 DAS3C B C M F VI	5.000	-10.000	-11.700	55.000	SRF 1.7440
[VELO71]	ARC 87-747 DAS3C B C M F VI	10.000	10.000	-11.700	55.000	SRF 3.0010

VMRO 0.0000  
ZMRD 11.7000  
SCALE 1.0300

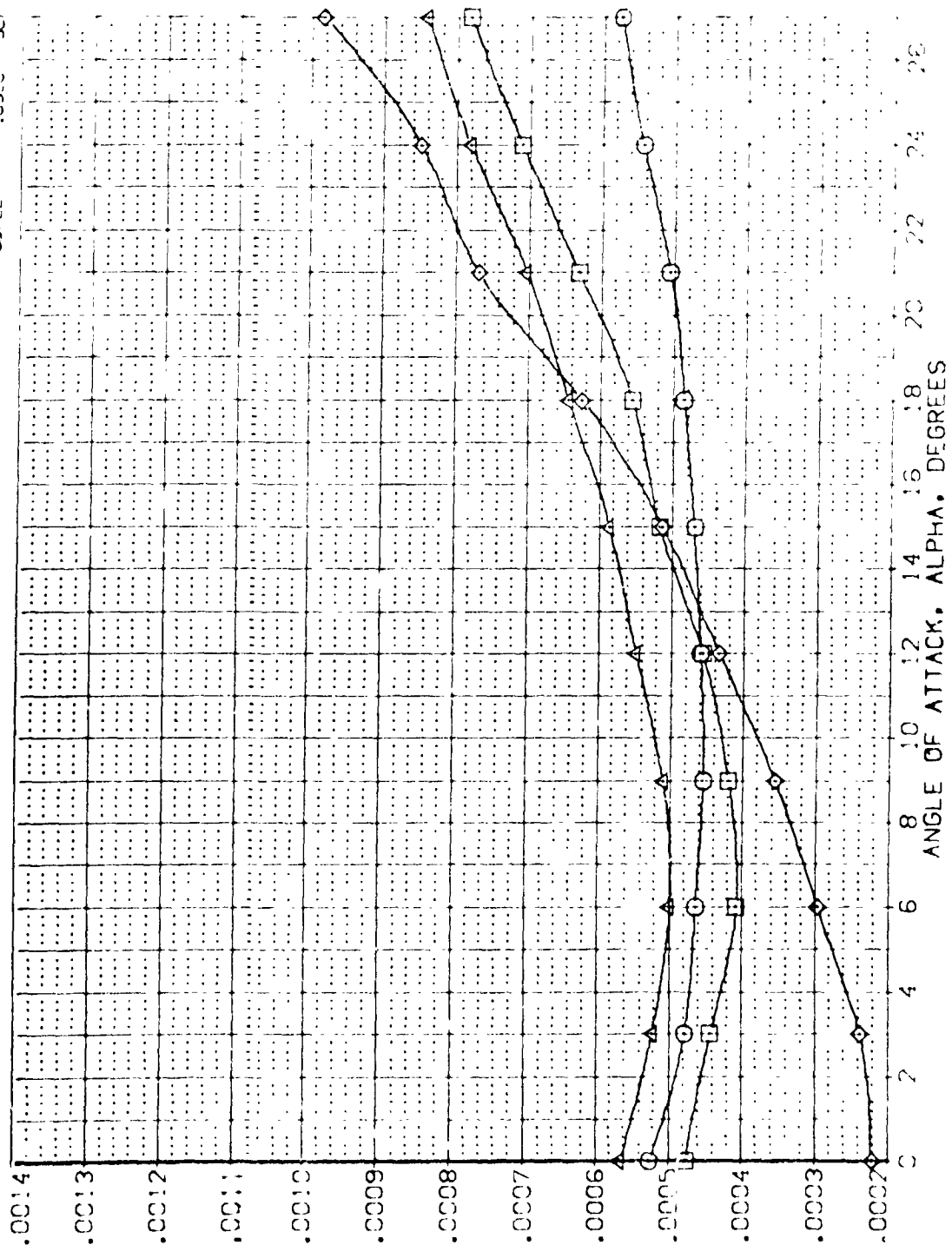


FIG. 18 AILERON EFFECTIVENESS DERIVATIVES

COMACH = 3.50

DATA SET SYMBOL	DESCRIPTION	DA	ELEVATION	BOX LAP	SPOBAY	REFERENCE	SCALE
ABC 87-747	B C F V	20,000	-20,000	-11,700	55,000	2,420	SCALE
ABC 87-747	D A S C B C F V	5,000	-10,000	-11,700	55,000	2,420	SCALE
ABC 87-747	D A S C B C F V	5,000	-10,000	-11,700	55,000	2,420	SCALE
ABC 87-747	D A S C B C F V	10,000	-10,000	-11,700	55,000	2,420	SCALE

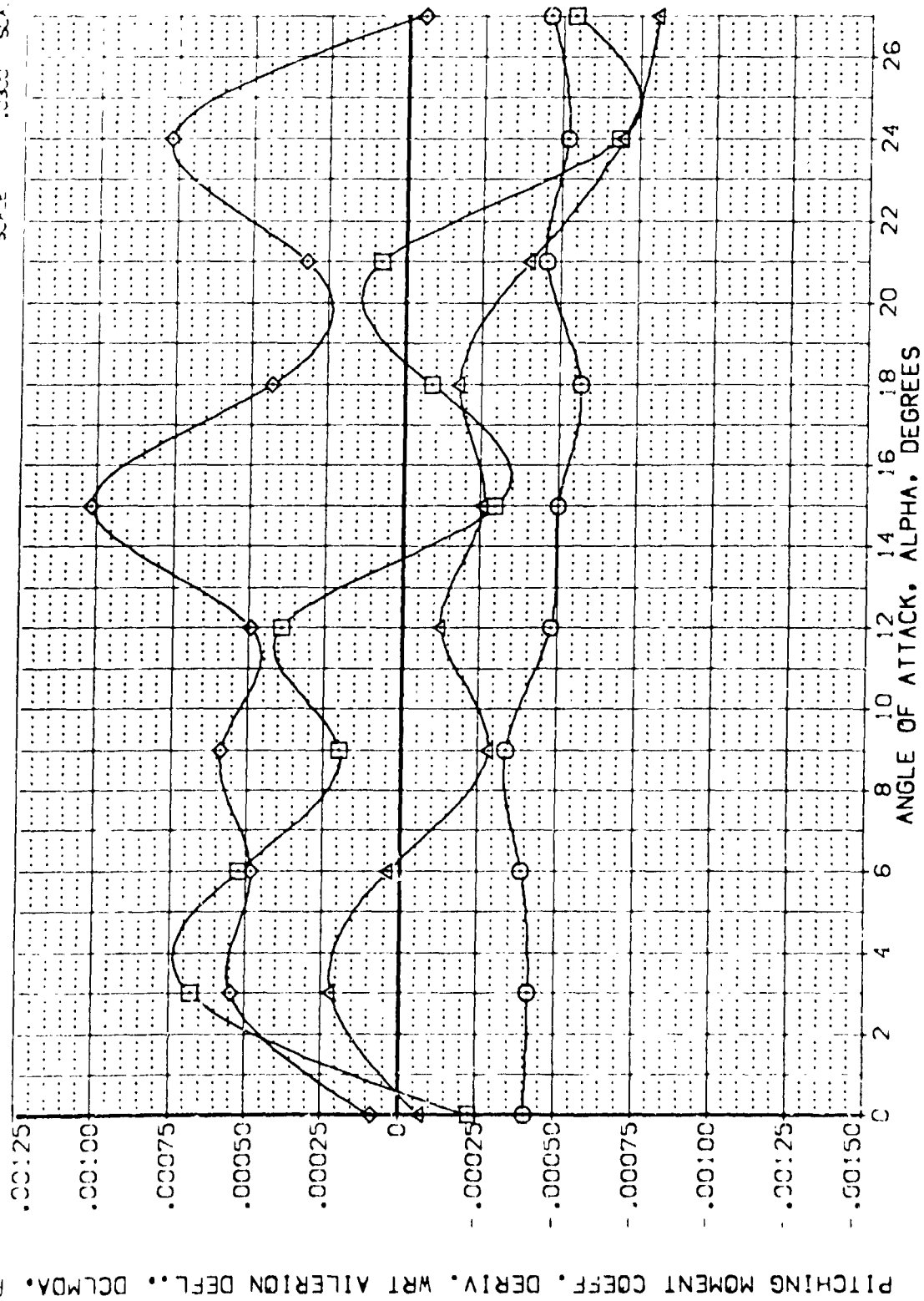


FIG. 18 AILERON EFFECTIVENESS DERIVATIVES

$$[A]_{AC} = 2.50$$



PITCHING MOMENT COEFF. DERIV. WRT AILERON DEFL., DCLMDA, PER DEG

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DA	ELEVON	BOF LAP	SPOBRK	REFERENCE INFORMATION
[VEL022]	ARC 87-747 OAS3C B C M F V	20.000	-20.000	-11.700	55.000	SREF 2.4710 SQ. T.
[VEL023]	ARC 87-747 OAS3C B C M F V	5.000	-10.000	-11.700	55.000	REF 14.2440
[VEL024]	ARC 87-747 OAS3C B C M F V	5.000	-10.000	-11.700	55.000	REF 28.1004
[VEL025]	ARC 87-747 OAS3C B C M F V	10.000	-10.000	-11.700	55.000	REF 32.3010
						REF 11.2500
						SCALE 10.00

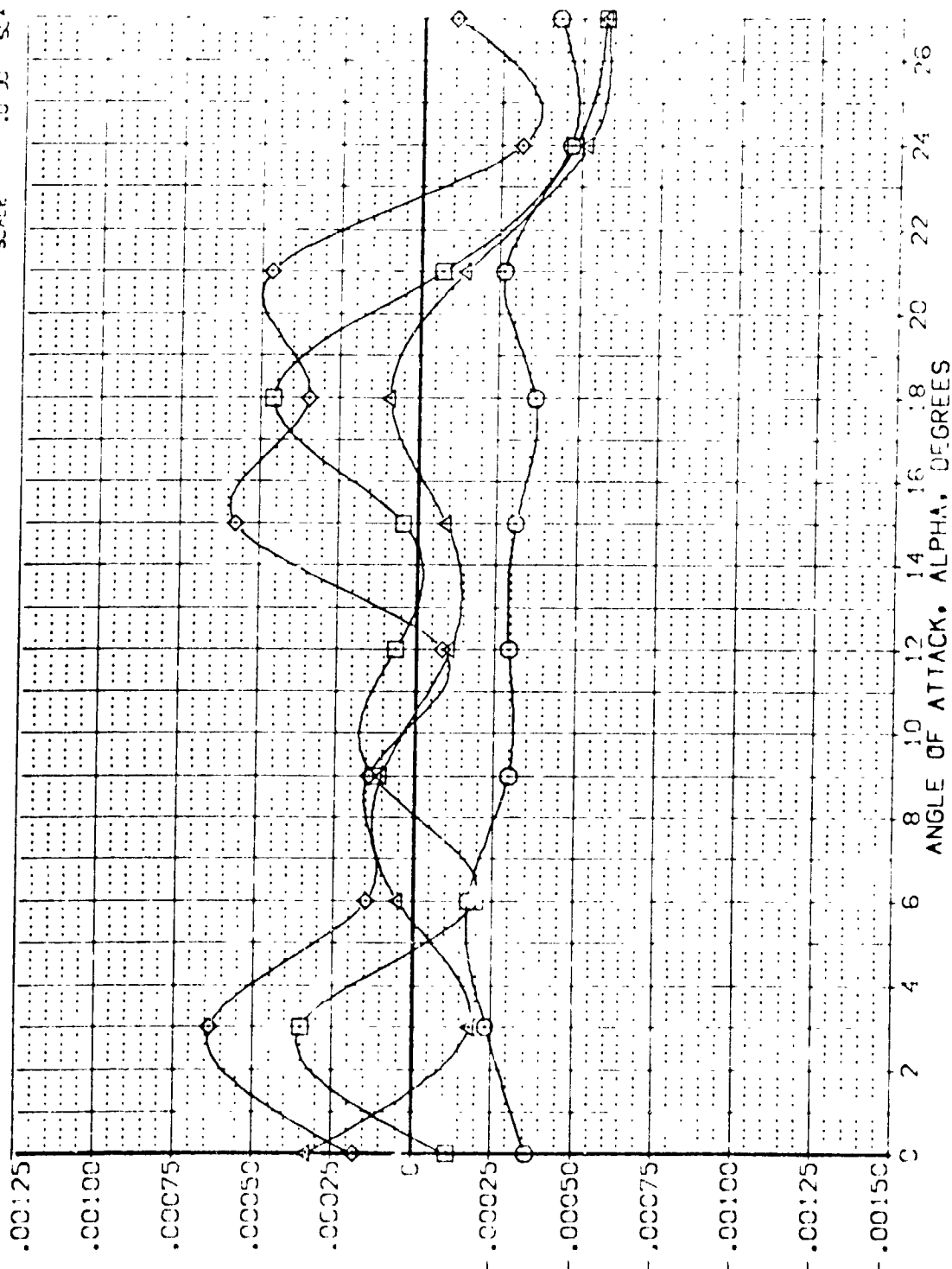


FIG. 18 AILERON EFFECTIVENESS DERIVATIVES

(B) MAG. 3.00

PITCHING MOMENT COEFF. DERIV. WRT AILERON DEFL., DCLMDA. PER DEG

DATA SET SYMBOL	COEFFICIENT DESCRIPTION	NO.	RV/L	DA	ELEVON	BOF LAP	SPOSH	REFERENCE IN DEGREE	SCALE
001	ARC B/ 17 C 53C B C 1 1 V	1	RV/L	20.000	-20.000	-11.700	55.000	2.421	50.000
002	ARC B/ 17 C 53C B C 1 1 V	2	RV/L	5.000	-10.000	-11.700	55.000	14.243	50.000
003	ARC B/ 17 C 53C B C 1 1 V	3	RV/L	10.000	-10.000	-11.700	55.000	28.100	50.000
004	ARC B/ 17 C 53C B C 1 1 V	4	RV/L	10.000	-10.000	-11.700	55.000	37.300	50.000
005	ARC B/ 17 C 53C B C 1 1 V	5	RV/L	10.000	-10.000	-11.700	55.000	47.000	50.000
006	ARC B/ 17 C 53C B C 1 1 V	6	RV/L	10.000	-10.000	-11.700	55.000	57.000	50.000
007	ARC B/ 17 C 53C B C 1 1 V	7	RV/L	10.000	-10.000	-11.700	55.000	67.000	50.000
008	ARC B/ 17 C 53C B C 1 1 V	8	RV/L	10.000	-10.000	-11.700	55.000	77.000	50.000
009	ARC B/ 17 C 53C B C 1 1 V	9	RV/L	10.000	-10.000	-11.700	55.000	87.000	50.000
010	ARC B/ 17 C 53C B C 1 1 V	10	RV/L	10.000	-10.000	-11.700	55.000	97.000	50.000

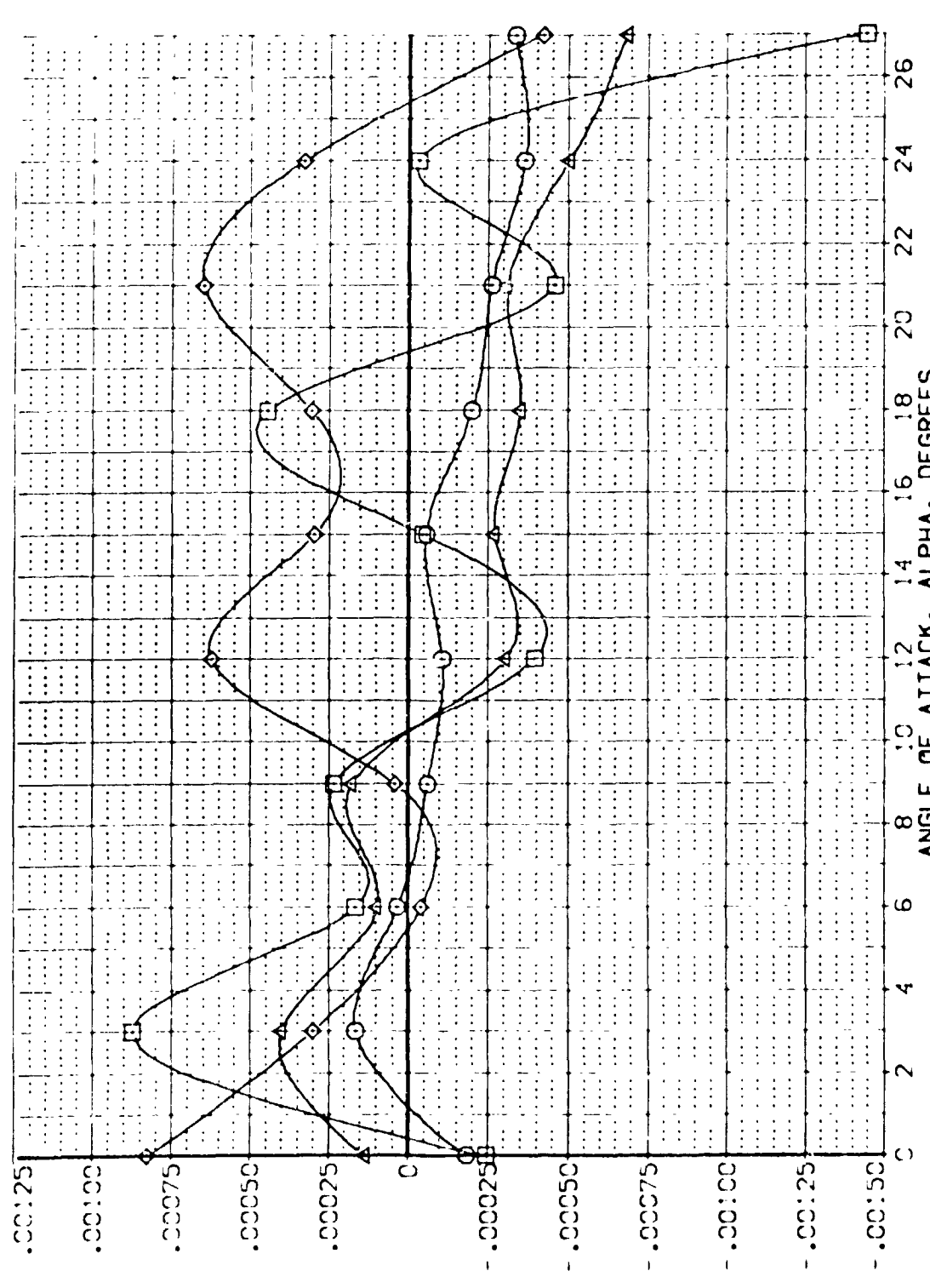


FIG. 18 AILERON EFFECTIVENESS DERIVATIVES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	NO.	RU/L	ALPHA	RUDER	BOX LAP	SPEED	REFERENCE IN DATA	SCALE
AE-030	□	ARC 87-747 CASXC B C M F VI V	NO.	RU/L	.000	10.000	11.700	75.000	SRF	2.4210
AE-036	○	ARC 87-747 CASXC B C M F VI V	NO.	RU/L	10.000	10.000	11.700	75.000	SRF	2.4210
AE-037	△	ARC 87-747 CASXC B C M F VI V	NO.	RU/L	20.000	10.000	11.700	75.000	SRF	2.4210
AE-038	×	ARC 87-747 CASXC B C M F VI V	NO.	RU/L	10.000	20.000	11.700	75.000	SRF	2.4210
AE-039	+	ARC 87-747 CASXC B C M F VI V	NO.	RU/L	20.000	20.000	11.700	75.000	SRF	2.4210
AE-033	·	ARC 87-747 CASXC B C M F VI V	NO.	RU/L	10.000	20.000	11.700	75.000	SRF	2.4210
AE-033	·	ARC 87-747 CASXC B C M F VI V	NO.	RU/L	20.000	20.000	11.700	75.000	SRF	2.4210

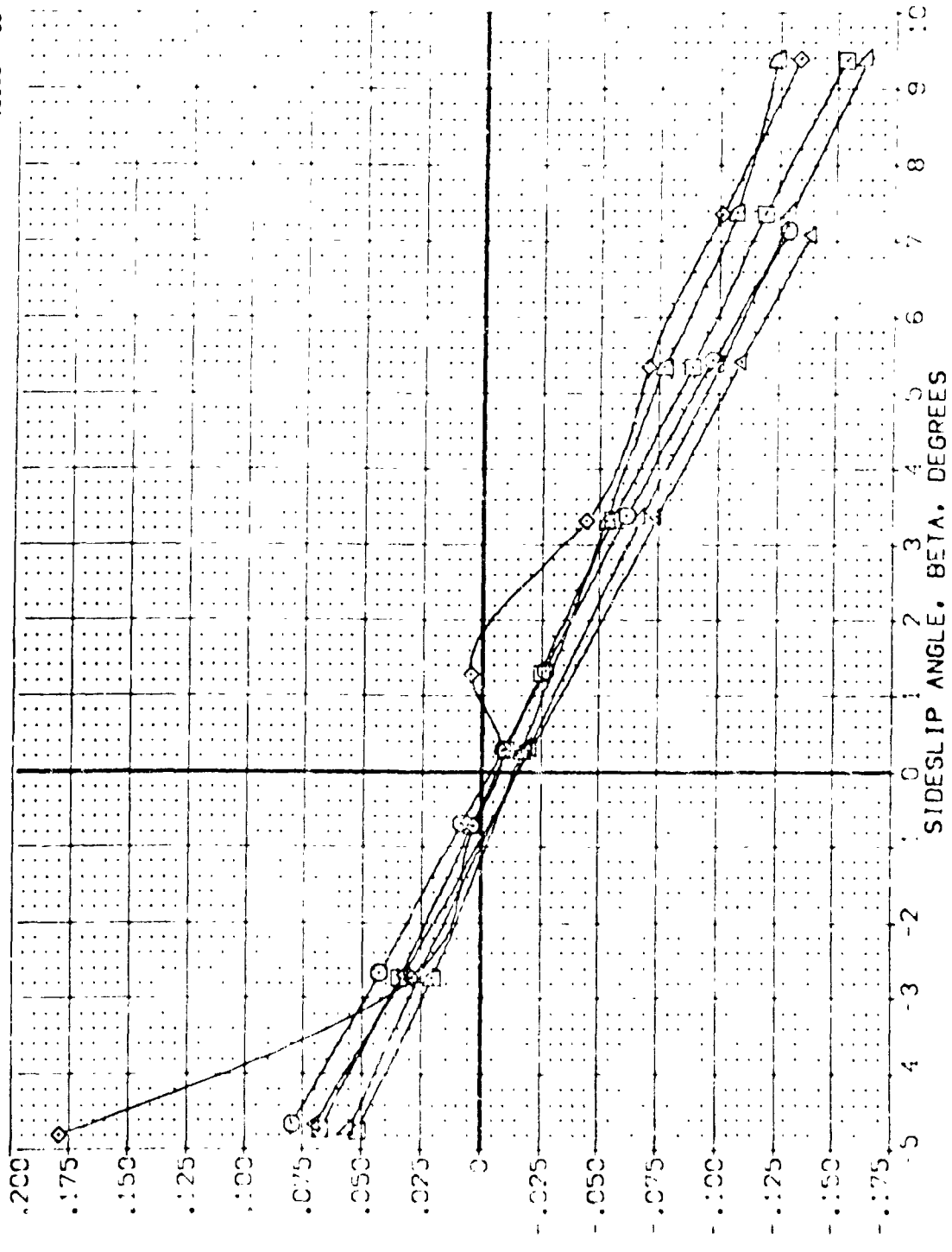


FIG. 19 RUDDER EFFECTS, SPEEDBRAKE 25 DEGREES

CADMAC - 2.50

DATA	SYMBOL	COORDINATE	DESCRIPTION	ALPHA	RUDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
AE-032	ABC	87-747	CA53C	0.000	-10.000	-11.700	20.000	SREF 2.4212
AE-033	ABC	87-747	CA53C	10.000	-10.000	-11.700	20.000	SPREF 14.2444
AE-034	ABC	87-747	CA53C	20.000	-10.000	-11.700	20.000	SPREF 28.1004
AE-035	ABC	87-747	CA53C	10.000	-25.000	-11.700	20.000	SPREF 20.0000
AE-036	ABC	87-747	CA53C	20.000	-25.000	-11.700	20.000	SPREF 11.0000

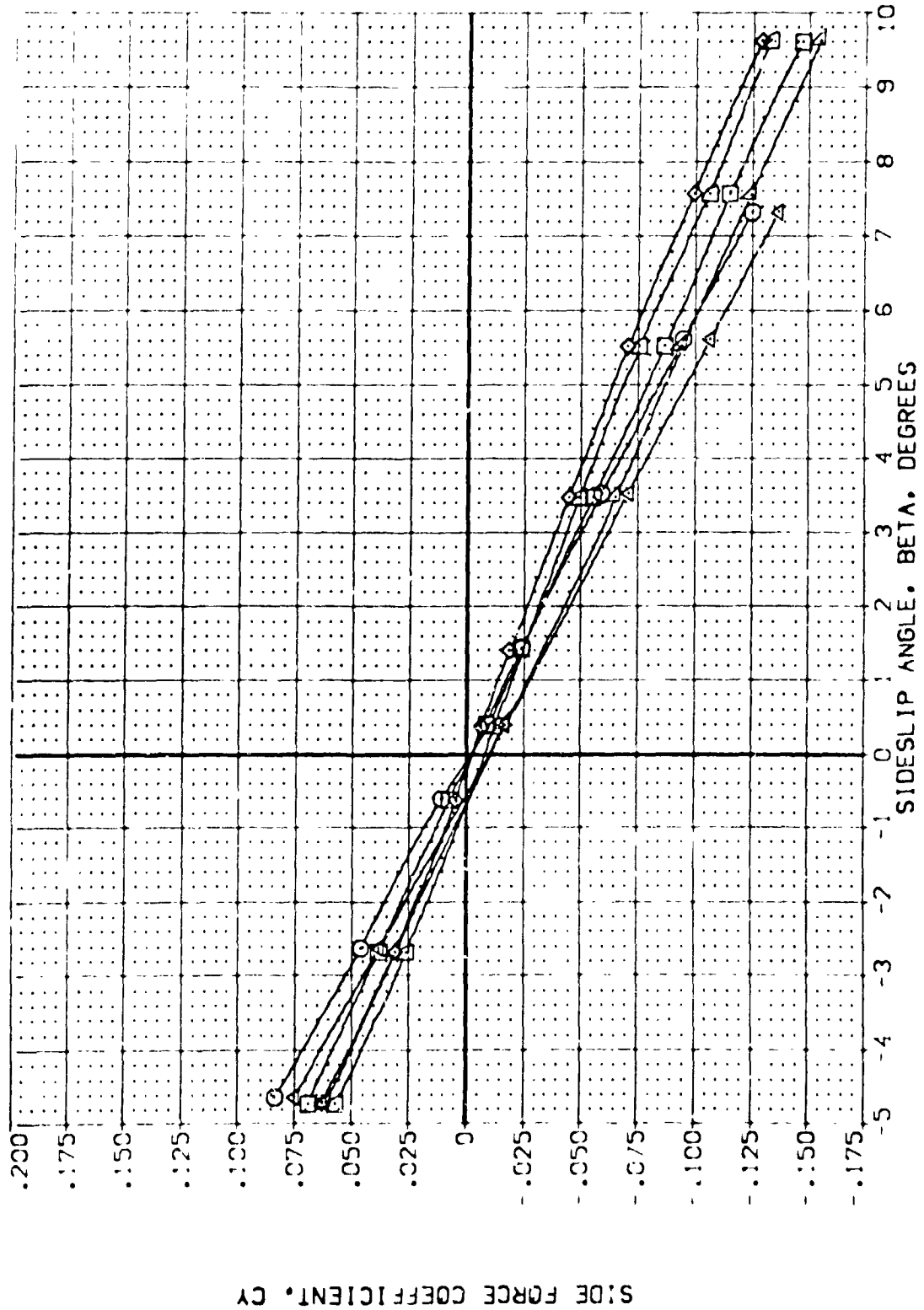


FIG. 19 RUDDER EFFECTS, SPEEDBRAKE 25 DEGREES

(B)MAC 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOLAP	SPEED	WIND	WAVE	SCALE
AL-030	○	ARC 87-747 C-53C B C C C C C	.000	10.000	11.700	25.000	2.4210	14.000	10.000
AL-036	○	ARC 87-747 C-53C B C C C C C	10.000	10.000	11.700	25.000	2.4210	14.000	10.000
AL-037	○	ARC 87-747 C-53C B C C C C C	20.000	10.000	11.700	25.000	2.4210	14.000	10.000
AL-038	○	ARC 87-747 C-53C B C C C C C	30.000	10.000	11.700	25.000	2.4210	14.000	10.000
AL-039	○	ARC 87-747 C-53C B C C C C C	40.000	10.000	11.700	25.000	2.4210	14.000	10.000
AL-040	○	ARC 87-747 C-53C B C C C C C	50.000	10.000	11.700	25.000	2.4210	14.000	10.000
AL-041	○	ARC 87-747 C-53C B C C C C C	60.000	10.000	11.700	25.000	2.4210	14.000	10.000
AL-042	○	ARC 87-747 C-53C B C C C C C	70.000	10.000	11.700	25.000	2.4210	14.000	10.000
AL-043	○	ARC 87-747 C-53C B C C C C C	80.000	10.000	11.700	25.000	2.4210	14.000	10.000
AL-044	○	ARC 87-747 C-53C B C C C C C	90.000	10.000	11.700	25.000	2.4210	14.000	10.000
AL-045	○	ARC 87-747 C-53C B C C C C C	100.000	10.000	11.700	25.000	2.4210	14.000	10.000

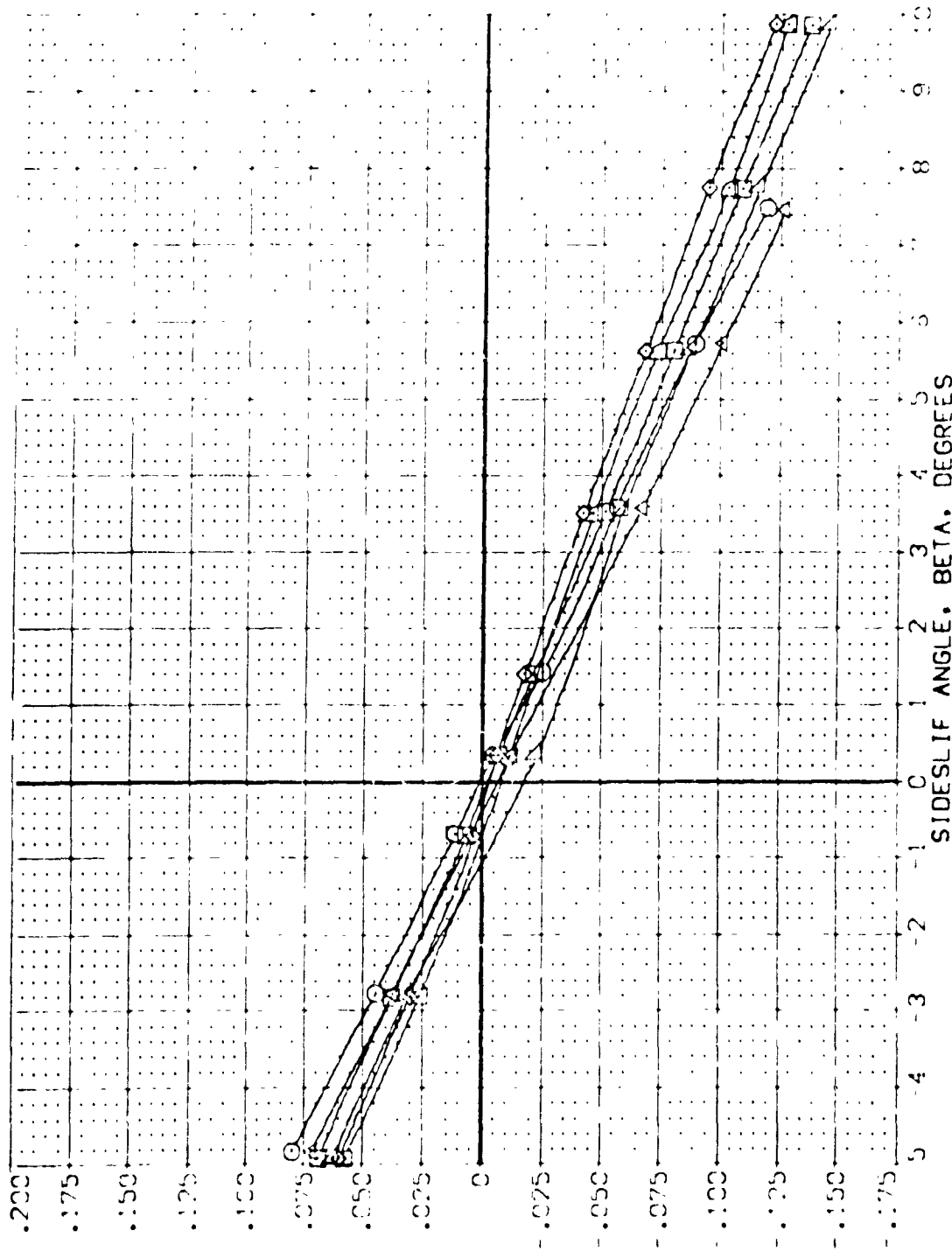
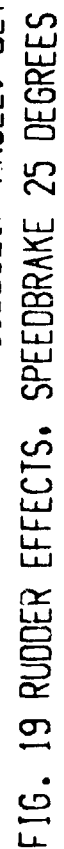


FIG. 19 RUDDER EFFECTS, SPEEDBRAKE 25 DEGREES

CONFAC 3.50

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)


$$(\text{A})_{\text{MAC}} = 2.50$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEED	REFERENCE INFORMATION
[AEL035]	ARC 87-747 CAS3C B C M F V	0.000	-10.000	-11.700	25.000	SREF 2.1210
[AEL036]	ARC 87-747 CAS3C B C M F V	10.000	-10.000	-11.700	25.000	REF 14.2440
[AEL037]	ARC 87-747 CAS3C B C M F V	20.000	-10.000	-11.700	25.000	SCALE 11.0300
[AEL038]	ARC 87-747 CAS3C B C M F V	0.000	-25.000	-11.700	25.000	SCALE 11.0300
[AEL039]	ARC 87-747 CAS3C B C M F V	10.000	-25.000	-11.700	25.000	SCALE 11.0300
[AEL040]	ARC 87-747 CAS3C B C M F V	20.000	-25.000	-11.700	25.000	SCALE 11.0300

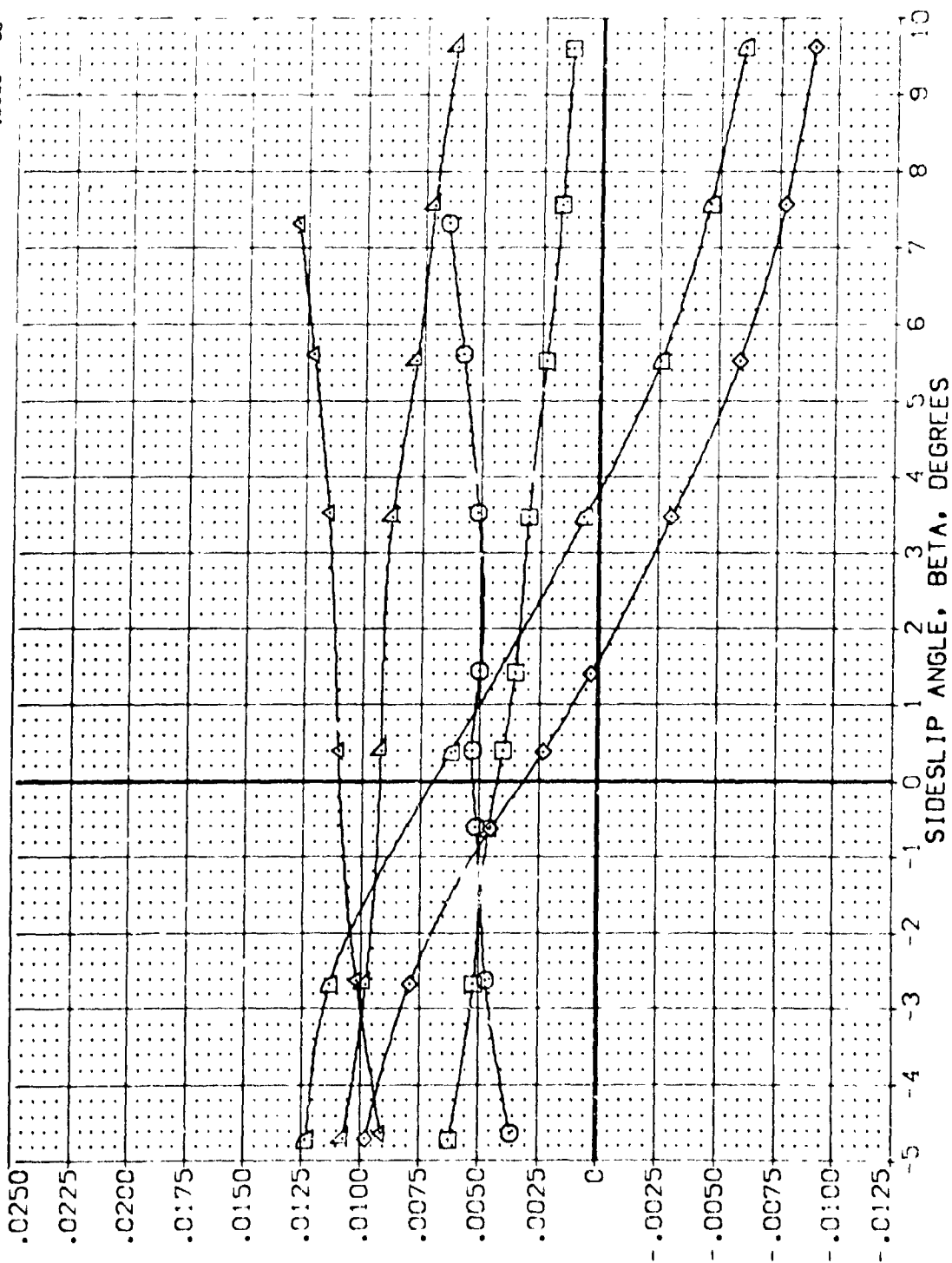


FIG. 19 RUDDER EFFECTS, SPEEDBRAKE 25 DEGREES

(B)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
[AELAS3]	ARC 87-747 BASIC B C H F VI	0.000	-10.000	-11.700	25.000	SREF 2.4210 50. FT.
[AEL023]	ARC 87-747 BASIC B C H F VI	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
[AEL037]	ARC 87-747 BASIC B C H F VI	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
[AEL041]	ARC 87-747 BASIC B C H F VI	10.000	-25.000	-11.700	25.000	XMRP 32.3010 IN.
[AEL052]	ARC 87-747 BASIC B C H F VI	10.000	-25.000	-11.700	25.000	YMRP 11.2500 IN.
[AEL053]	ARC 87-747 BASIC B C H F VI	20.000	-25.000	-11.700	25.000	ZMRP 11.2500 IN.
						SCALE 0.0300

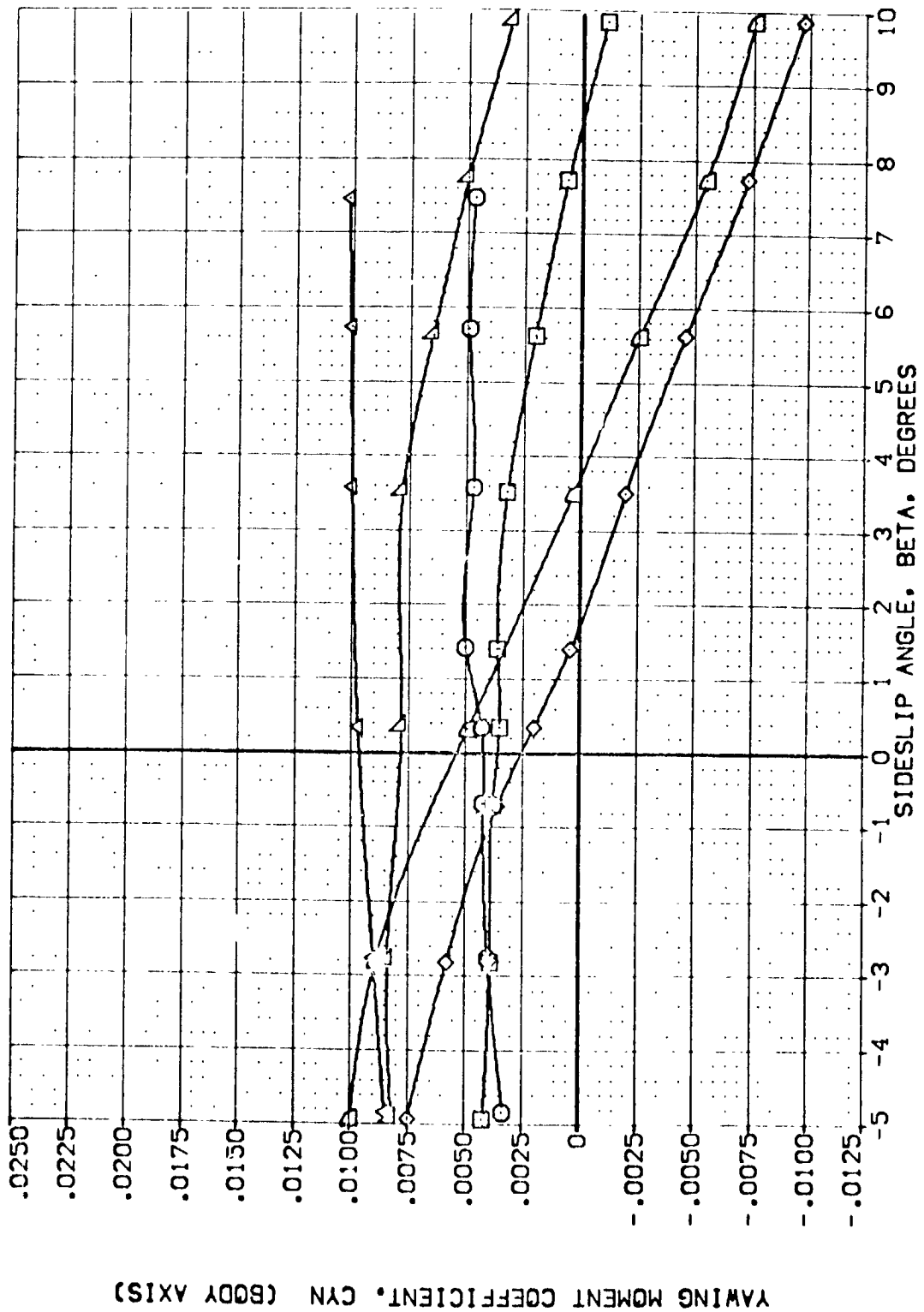


FIG. 19 RUDDER EFFECTS, SPEEDBRAKE 25 DEGREES

(CJ MACH = 3.50)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON.	RV/L	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
[AEL035]	ARC 87-747 DALS3C B C M F V I V	NON.	RV/L	.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[AEL036]	ARC 87-747 DALS3C B C M F V I V	NON.	RV/L	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
[AEL037]	ARC 87-747 DALS3C B C M F V I V	NON.	RV/L	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
[AEL051]	ARC 87-747 DALS3C B C M F V I V	NON.	RV/L	.000	-25.000	-11.700	25.000	YMRP 32.3010 IN.
[AEL052]	ARC 87-747 DALS3C B C M F V I V	NON.	RV/L	10.000	-25.000	-11.700	25.000	ZMRP .0000 IN.
[AEL053]	ARC 87-747 DALS3C B C M F V I V	NON.	RV/L	20.000	-25.000	-11.700	25.000	SCALE 11.2500 IN.

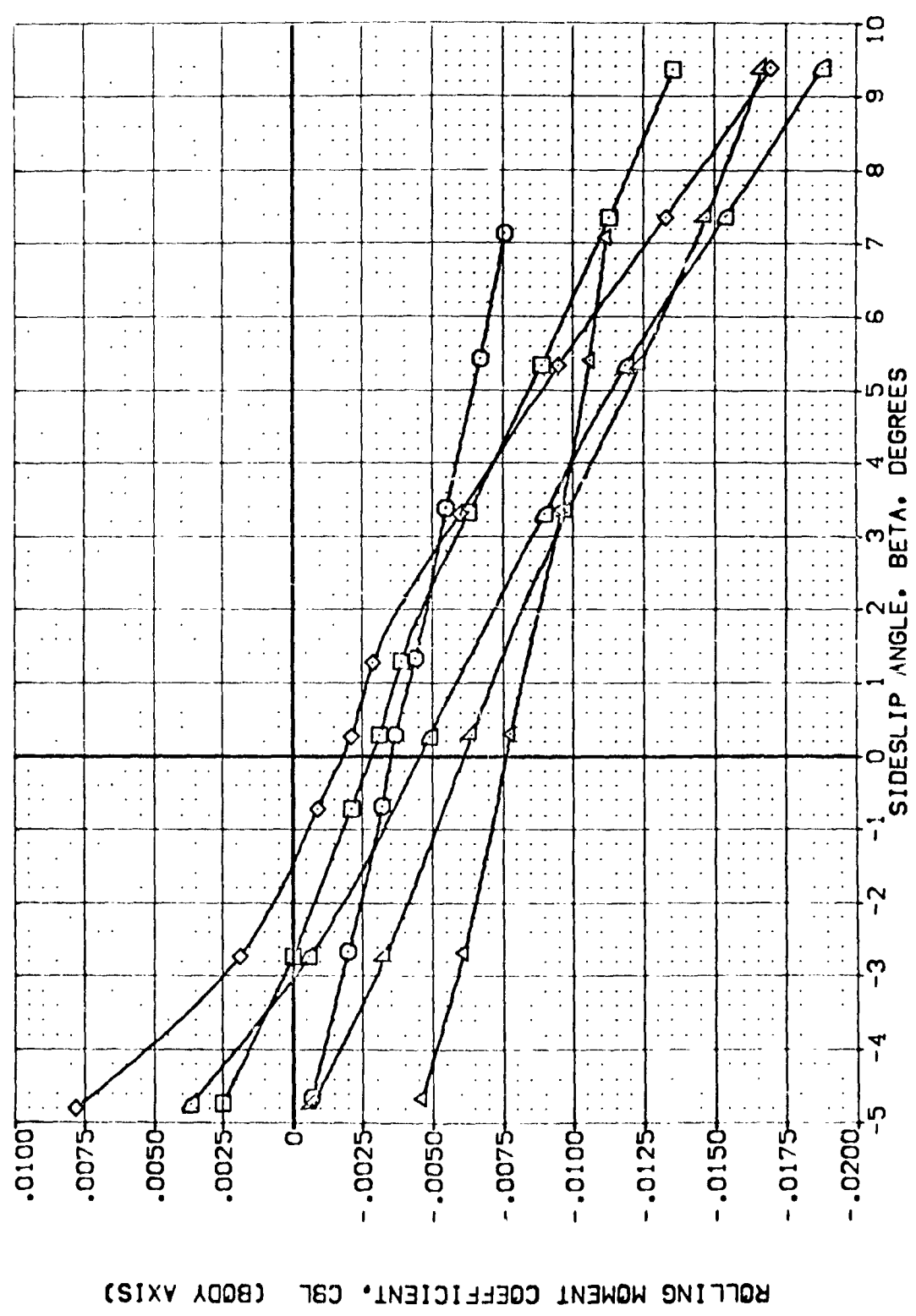


FIG. 19 RUDDER EFFECTS. SPEEDBRAKE 25 DEGREES

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON-REV	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
[AEL025]	ARC 87-747 CAS2C B C M F V1	NON-REV	.000	-10.000	-11.700	25.000	SREF 2.4210 SC.FT.
[AEL025]	ARC 87-747 CAS2C B C M F V1	NON-REV	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
[AEL025]	ARC 87-747 CAS2C B C M F V1	NON-REV	20.000	-10.000	-11.700	25.000	EPREF 28.1004 IN.
[AEL025]	ARC 87-747 CAS2C B C M F V1	NON-REV	10.000	-25.000	-11.700	25.000	YMPF 32.3010 IN.
[AEL025]	ARC 87-747 CAS2C B C M F V1	NON-REV	20.000	-25.000	-11.700	25.000	ZMPF 11.2500 IN.
[AEL025]	ARC 87-747 CAS2C B C M F V1	NON-REV	20.000	-25.000	-11.700	25.000	SCALE .0300

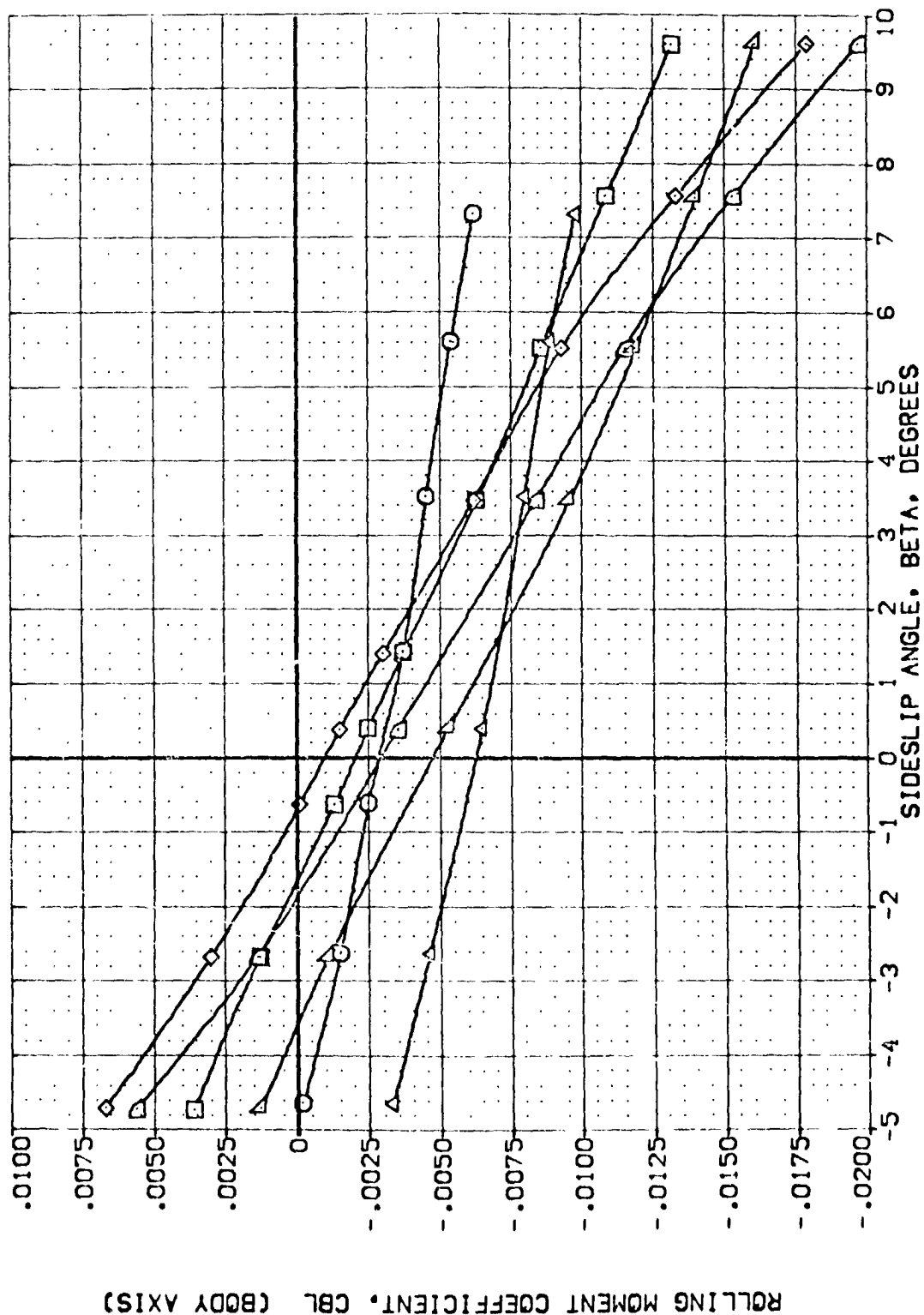


FIG. 19 RUDDER EFFECTS, SPEEDBRAKE 25 DEGREES

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEEDBRK	REFERENCE INFORMATION
(AELAS)	ARC 87-747 BASIC B C H F VI	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(AELC3)	ARC 87-747 BASIC B C H F VI	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
(AELC37)	ARC 87-747 BASIC B C H F VI	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
(AELC31)	ARC 87-747 BASIC B C H F VI	10.000	-25.000	-11.700	25.000	XPRP 32.3010 IN.
(AELC32)	ARC 87-747 BASIC B C H F VI	10.000	-25.000	-11.700	25.000	YPRP 11.2500 IN.
(AELC33)	ARC 87-747 BASIC B C H F VI	20.000	-25.000	-11.700	25.000	ZPRP 11.2500 IN.
						SCALE .0300

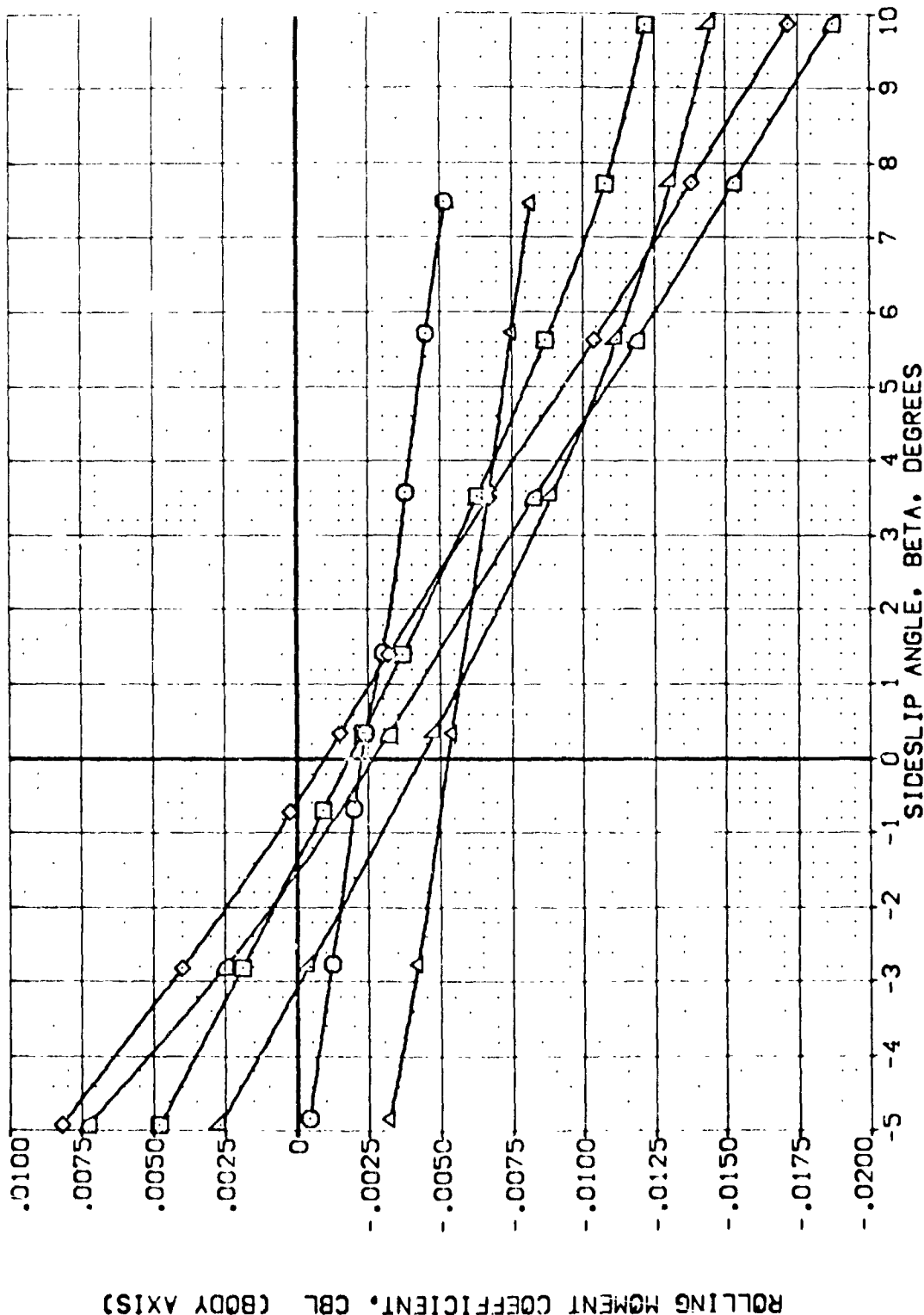


FIG. 19 RUDDER EFFECTS, SPEEDBRAKE 25 DEGREES

(CJ)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDLAP	SPOBRK	REFERENCE INFORMATION
[ALC029]	ARC 87-747 C453C B C M F V1 V	0.000	-10.000	-11.700	55.000	SREF 2.4210 50.000
[ALC030]	ARC 87-747 C453C B C M F V1 V	10.000	-10.000	-11.700	55.000	LREF 14.2440 50.000
[ALC031]	ARC 87-747 C453C B C M F V1 V	20.000	-10.000	-11.700	55.000	BREF 28.0000 50.000
[ALC032]	ARC 87-747 C453C B C M F V1 V	10.000	-20.000	-11.700	48.000	XMRP 32.3010 50.000
[ALC033]	ARC 87-747 C453C B C M F V1 V	10.000	-20.000	-11.700	48.000	YMRP 11.2500 50.000
[ALC034]	ARC 87-747 C453C B C M F V1 V	20.000	-20.000	-11.700	48.000	ZMRP 11.2500 50.000
						SCALE 0.0300

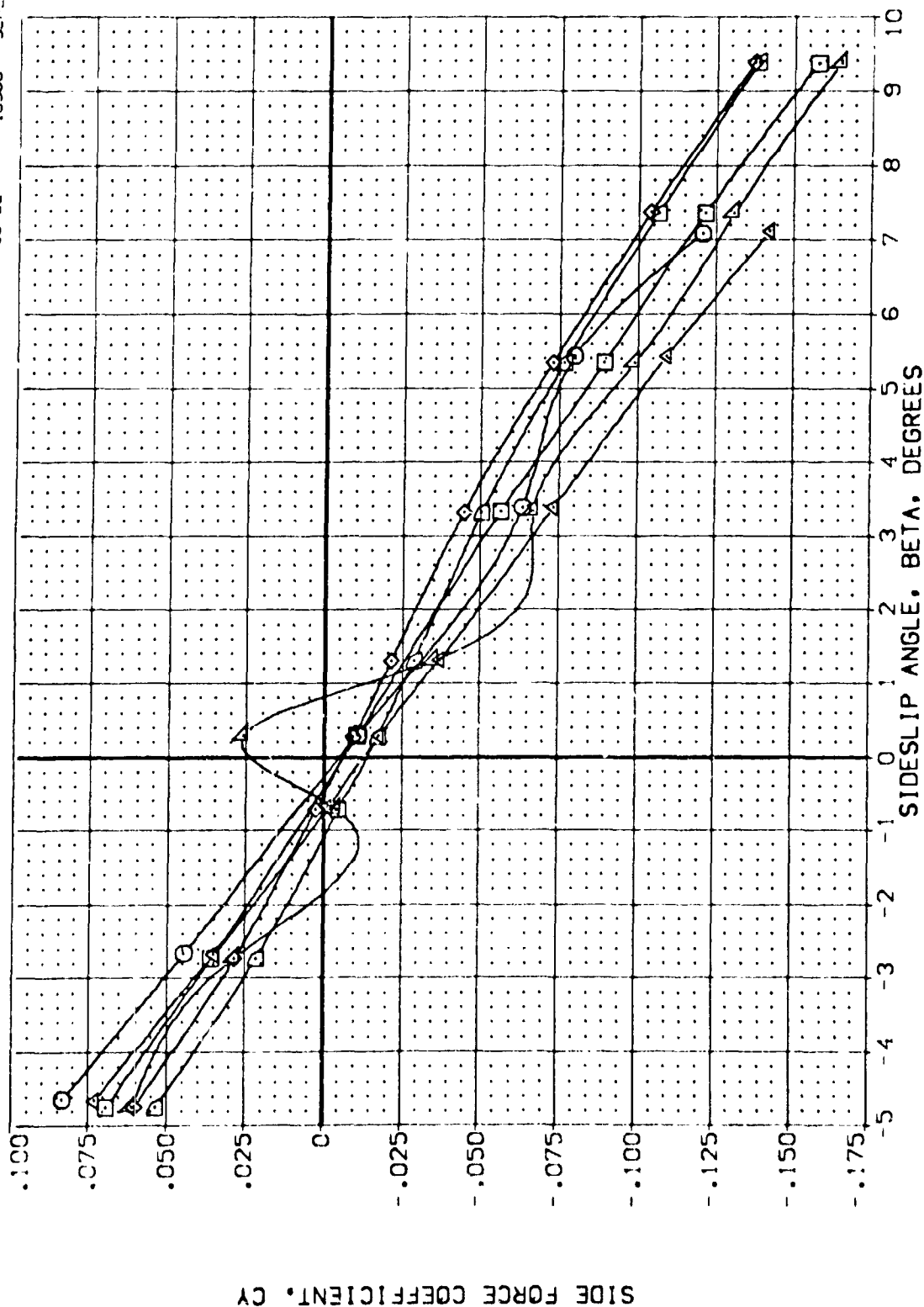


FIG. 20 RUDDER EFFECTS, SPEEDBRAKE 55 DEGREES

(A)MAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RV/L	ALPHA	RUDDER	BDF LAP	SPEED	REFERENCE INFORMATION
[AEL079]	ARC 87-747 CAS3C B C H F VI	V	0.000	-10.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[AEL080]	ARC 87-747 CAS3C B C H F VI	V	10.000	-10.000	-11.700	55.000	LREF 14.2440
[AEL081]	ARC 87-747 CAS3C B C H F VI	V	20.000	-10.000	-11.700	55.000	BREF 28.1004
[AEL082]	ARC 87-747 CAS3C B C H F VI	V	0.000	-20.000	-11.700	46.000	XREF 32.3010
[AEL083]	ARC 87-747 CAS3C B C H F VI	V	10.000	-20.000	-11.700	46.000	YREF 11.2000
[AEL084]	ARC 87-747 CAS3C B C H F VI	V	20.000	-20.000	-11.700	46.000	ZREF 11.2000
							SCALE .3300
							SCALE

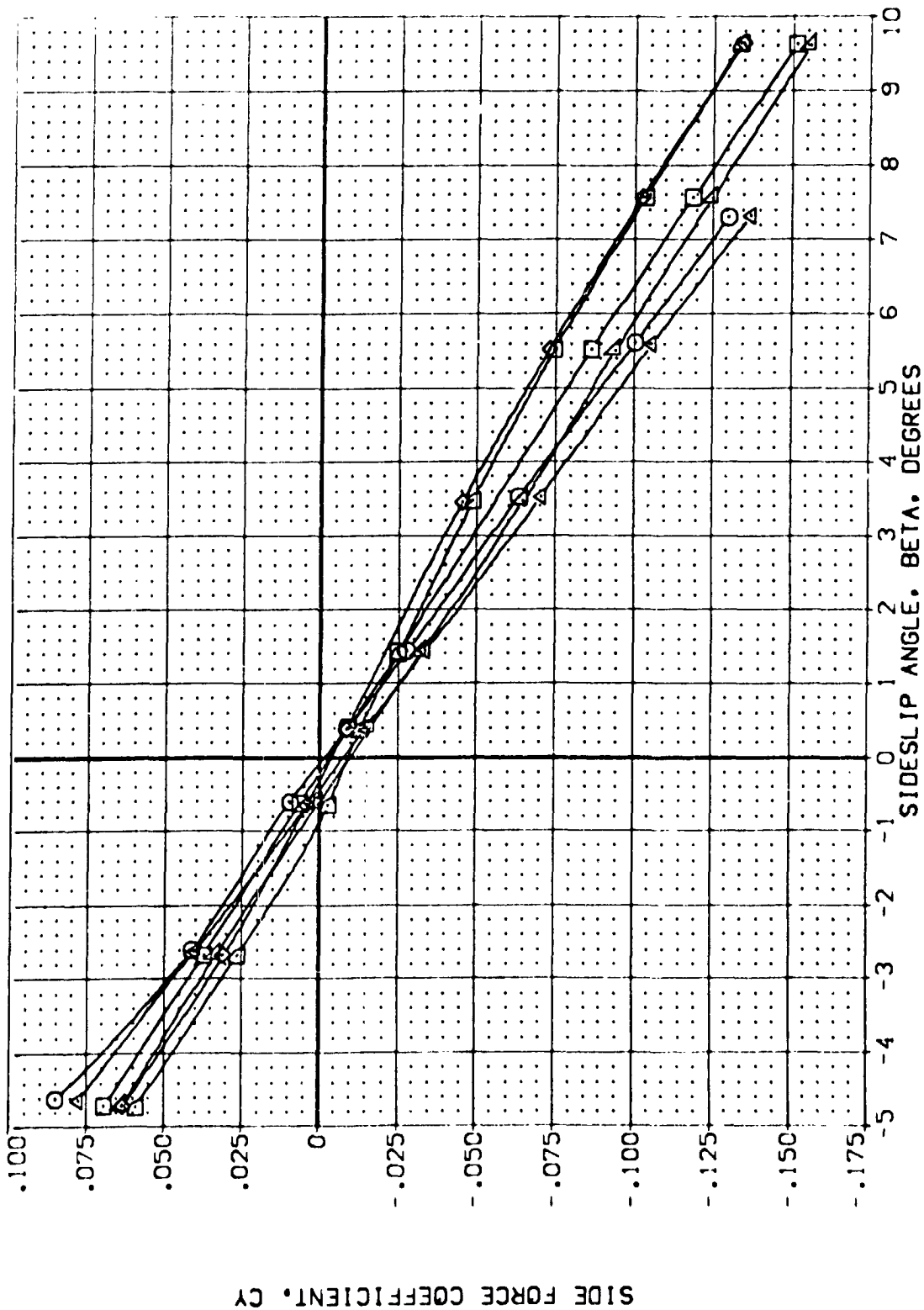


FIG. 20 RUDDER EFFECTS, SPEEDBRAKE 55 DEGREES

(B) VAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ALPHA	RUDDER	BOF LAP	SPOBRK	REFERENCE INFORMATION
[AEL029]	ARC 87-747 CAS3C B C H F VI	V	RV/L	0.000	-10.000	-11.700	55.000	SAFF 2.4210
[AEL030]	ARC 87-747 CAS3C B C H F VI	V	RV/L	10.000	-10.000	-11.700	55.000	LREF 14.2440
[AEL031]	ARC 87-747 CAS3C B C H F VI	V	RV/L	20.000	-10.000	-11.700	55.000	BRF 78.1004
[AEL032]	ARC 87-747 CAS3C B C H F VI	V	RV/L	10.000	-20.000	-11.700	46.000	XMBP 32.0000
[AEL033]	ARC 87-747 CAS3C B C H F VI	V	RV/L	10.000	-20.000	-11.700	46.000	YMBP 11.0000
[AEL034]	ARC 87-747 CAS3C B C H F VI	V	RV/L	20.000	-20.000	-11.700	46.000	ZMBP 0.0000
								SCALE 0.0000

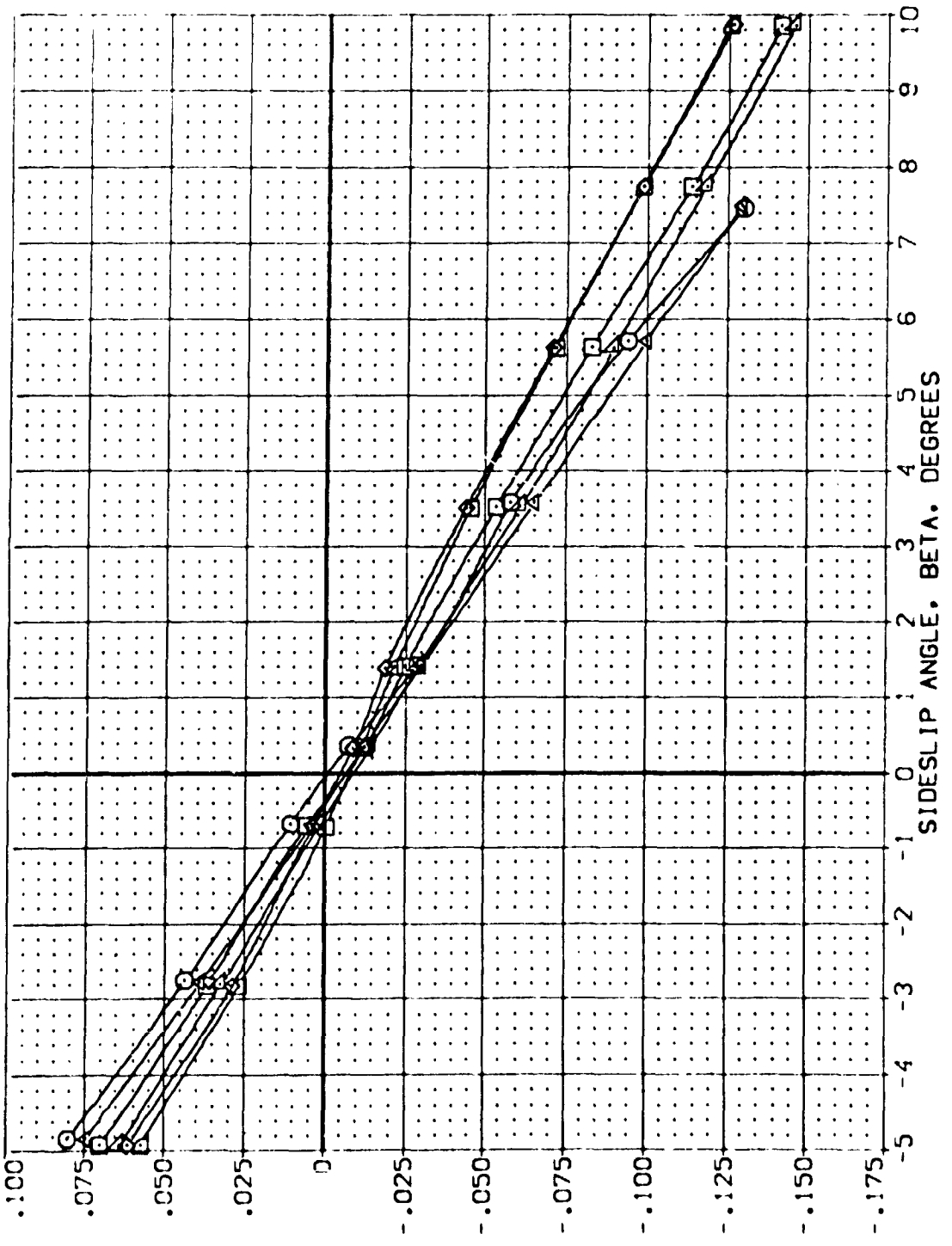


FIG. 20 RUDDER EFFECTS, SPEEDBRAKE 55 DEGREES

(C)MAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOT	RU/L	ALPHA	RUDDER	BDF LAP	SPOBRK	REFERENCE INFORMATION
[AEL029]	ARC 87-747 BASIC B C M F VI V	NOT	RU/L	.000	-10.000	-11.700	55.000	SREF 2.4210 50. FT.
[AEL030]	ARC 87-747 BASIC B C M F VI V	NOT	RU/L	10.000	-10.000	-11.700	55.000	LREF 14.2440 N.
[AEL031]	ARC 87-747 BASIC B C M F VI V	NOT	RU/L	20.000	-10.000	-11.700	55.000	BREF 28.1004 N.
[AEL032]	ARC 87-747 BASIC B C M F VI V	NOT	RU/L	10.000	-20.000	-11.700	46.000	YMRP 37.3010 N.
[AEL033]	ARC 87-747 BASIC B C M F VI V	NOT	RU/L	20.000	-20.000	-11.700	46.000	ZMRP 11.2500 N.
[AEL034]	ARC 87-747 BASIC B C M F VI V	NOT	RU/L	20.000	-20.000	-11.700	46.000	SCALE .0300 SCALE

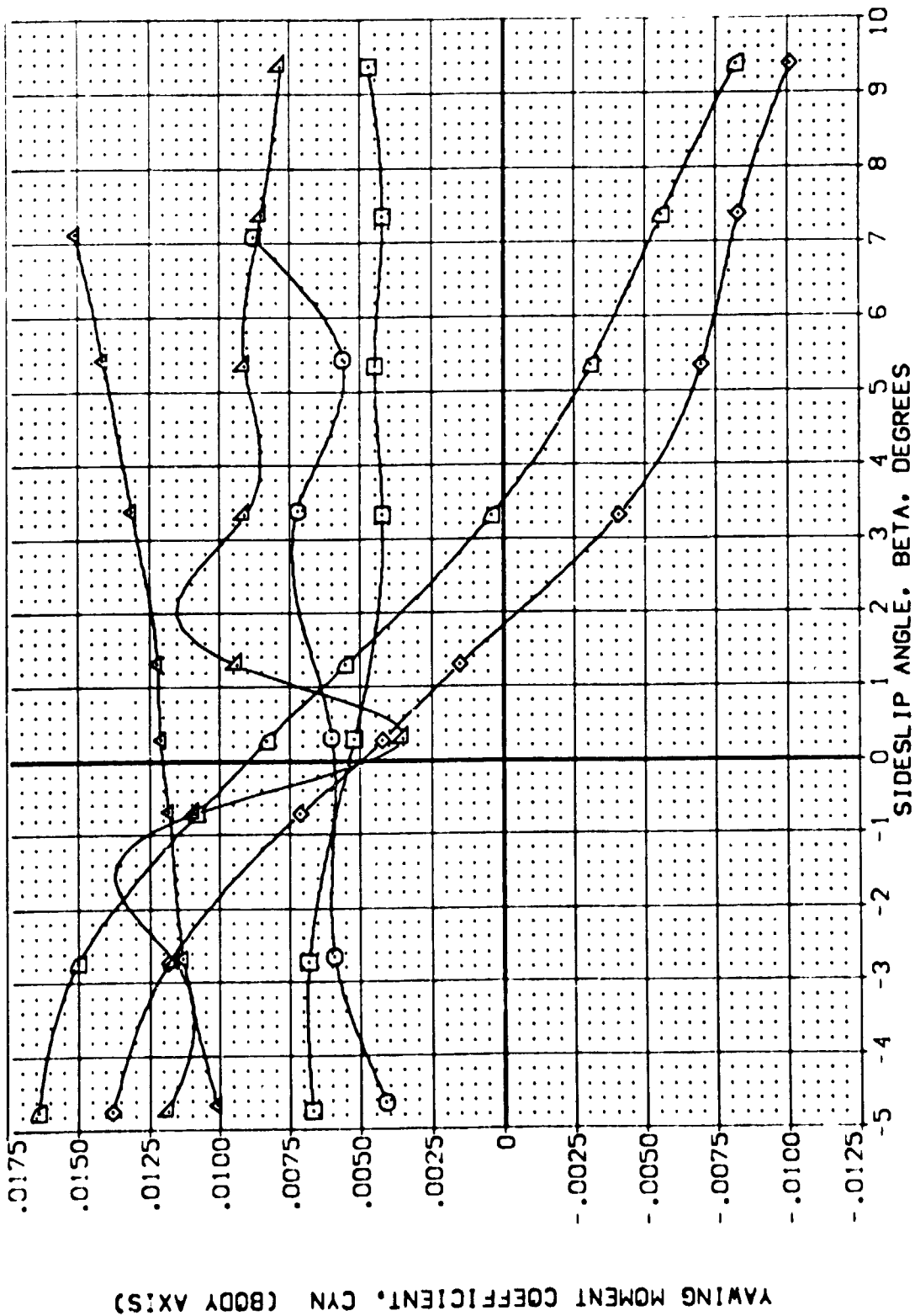


FIG. 20 RUDDER EFFECTS. SPEEDBRAKE 55 DEGREES

(A)  $MAC = 2.50$

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ALPHA	RUDDER	BOG LAP	SPOBRK	REFERENCE INFORMATION	SCALE
[AEL029]	Q	ARC 87-747 DASSC B C H F VI V	NOM	RV/L	.000	-10.000	-11.700	55.000	SREF	2.4210
[AEL030]	Q	ARC 87-747 DASSC B C H F VI V	NOM	RV/L	10.000	-10.000	-11.700	55.000	LRFF	14.2440
[AEL031]	Q	ARC 87-747 DASSC B C H F VI V	NOM	RV/L	20.000	-10.000	-11.700	55.000	BRFF	28.1004
[AEL032]	Q	ARC 87-747 DASSC B C H F VI V	NOM	RV/L	10.000	20.000	-11.700	46.000	YMRP	32.3010
[AEL033]	Q	ARC 87-747 DASSC B C H F VI V	NOM	RV/L	10.000	20.000	-11.700	46.000	ZMRP	11.2500
[AEL034]	Q	ARC 87-747 DASSC B C H F VI V	NOM	RV/L	20.000	20.000	-11.700	46.000	SCALE	0.0300

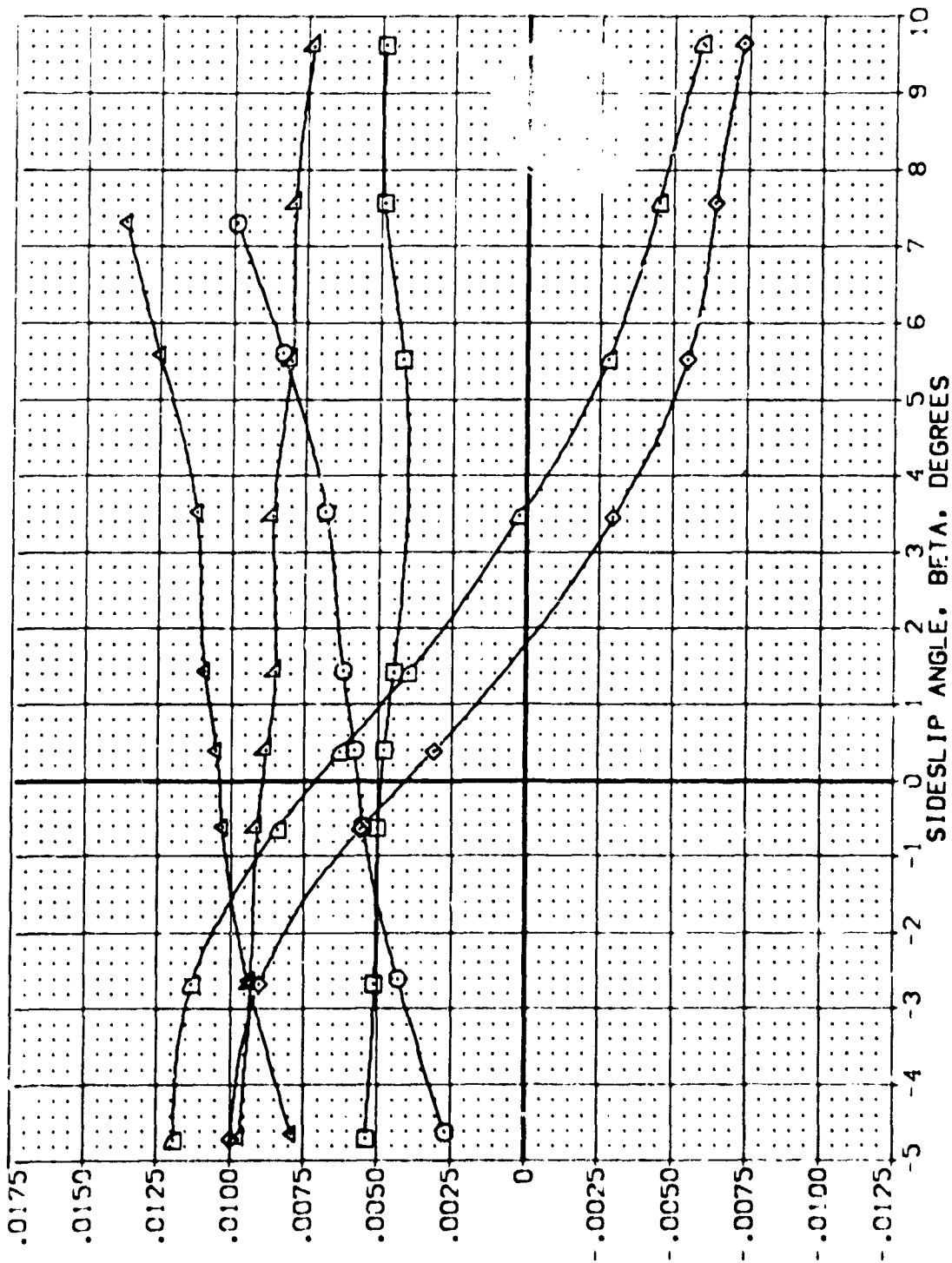


FIG. 20 RUDDER EFFECTS, SPEEDBRAKE 55 DEGREES

330YAC- = 3.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA	RUDDER	BOF LAP	SPEED	REFERENCE INFORMATION
[AEL029]	ARC 87-747	DA53C B C M F V	0.000	-10.000	-11.700	55.000	SRFF 2.4710 SQ.FT.
[AEL030]	ARC 87-747	DA53C B C M F V	10.000	-10.000	-11.700	55.000	LRFF 14.2440
[AEL031]	ARC 87-747	DA53C B C M F V	20.000	-10.000	-11.700	55.000	BRFF 28.1004
[AEL032]	ARC 87-747	DA53C B C M F V	10.000	-20.000	-11.700	46.000	SRFF 2.4710 SQ.FT.
[AEL033]	ARC 87-747	DA53C B C M F V	10.000	-20.000	-11.700	46.000	LRFF 14.2440
[AEL034]	ARC 87-747	DA53C B C M F V	20.000	-20.000	-11.700	46.000	BRFF 28.1004

SCALE 11.7000 20.000 46.000 55.000

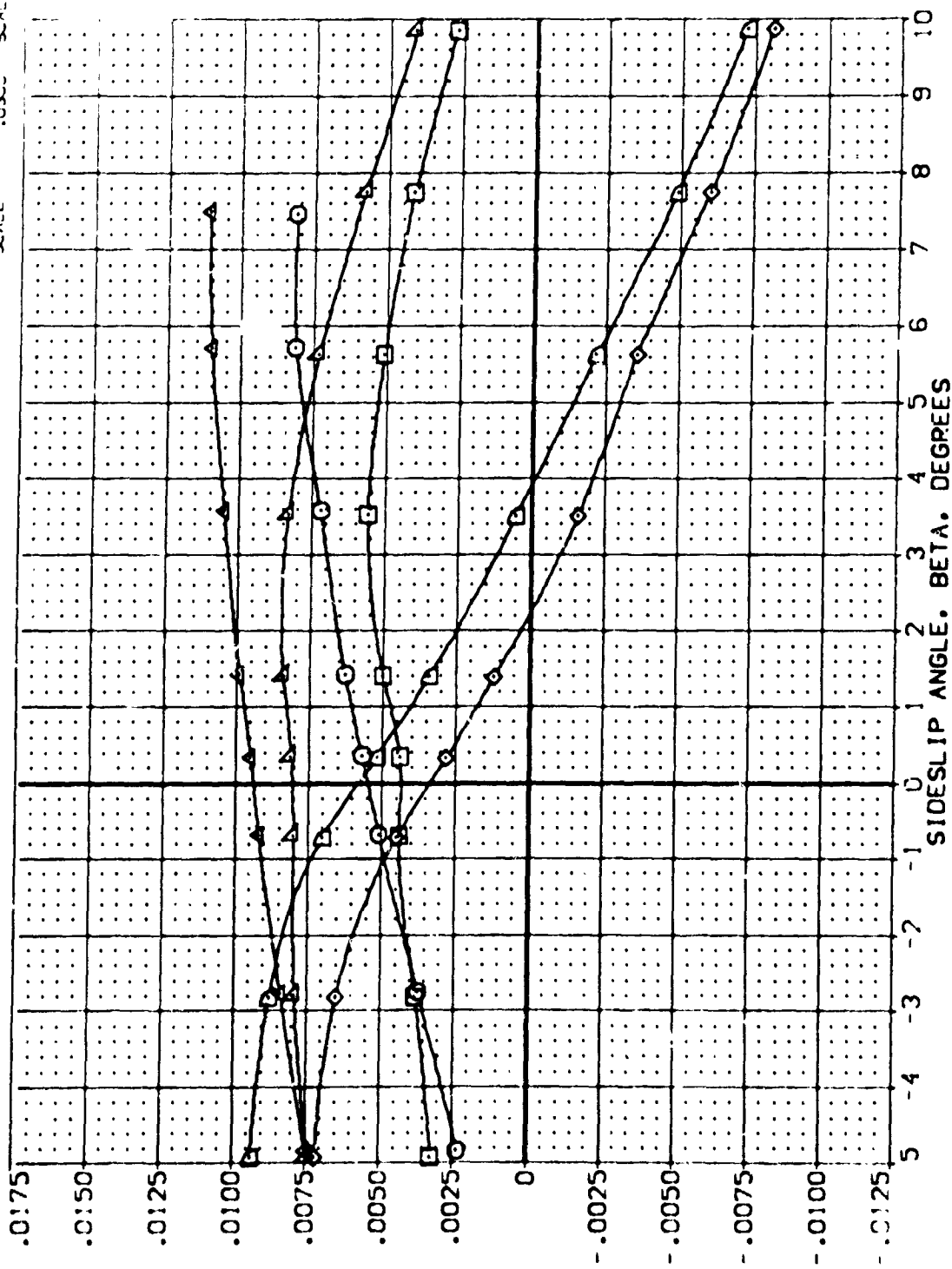


FIG. 20 RUDDER EFFECTS, SPEEDBRAKE 55 DEGREES

(C)MAC = 3.50

DATA SET SYMB.	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	WFLAP	SPEED	REFERENCE INFORMATION
(AELA29)	ARC 87-747 CASC B C H F VI	0.000	-10.000	-11.700	55.000	SREF 2.4210 50.FT.
(AELA30)	ARC 87-747 CASC B C H F VI	10.000	-10.000	-11.700	55.000	LREF 14.2440 IN.
(AELA31)	ARC 87-747 CASC B C H F VI	20.000	-10.000	-11.700	55.000	BREF 28.1004 IN.
(AELA32)	ARC 87-747 CASC B C H F VI	10.000	-20.000	-11.700	46.000	XREF 32.3010 IN.
(AELA33)	ARC 87-747 CASC B C H F VI	10.000	-20.000	-11.700	46.000	YREF 11.2500 IN.
(AELA34)	ARC 87-747 CASC B C H F VI	20.000	-20.000	-11.700	46.000	ZREF 11.2500 IN.
						SCALE

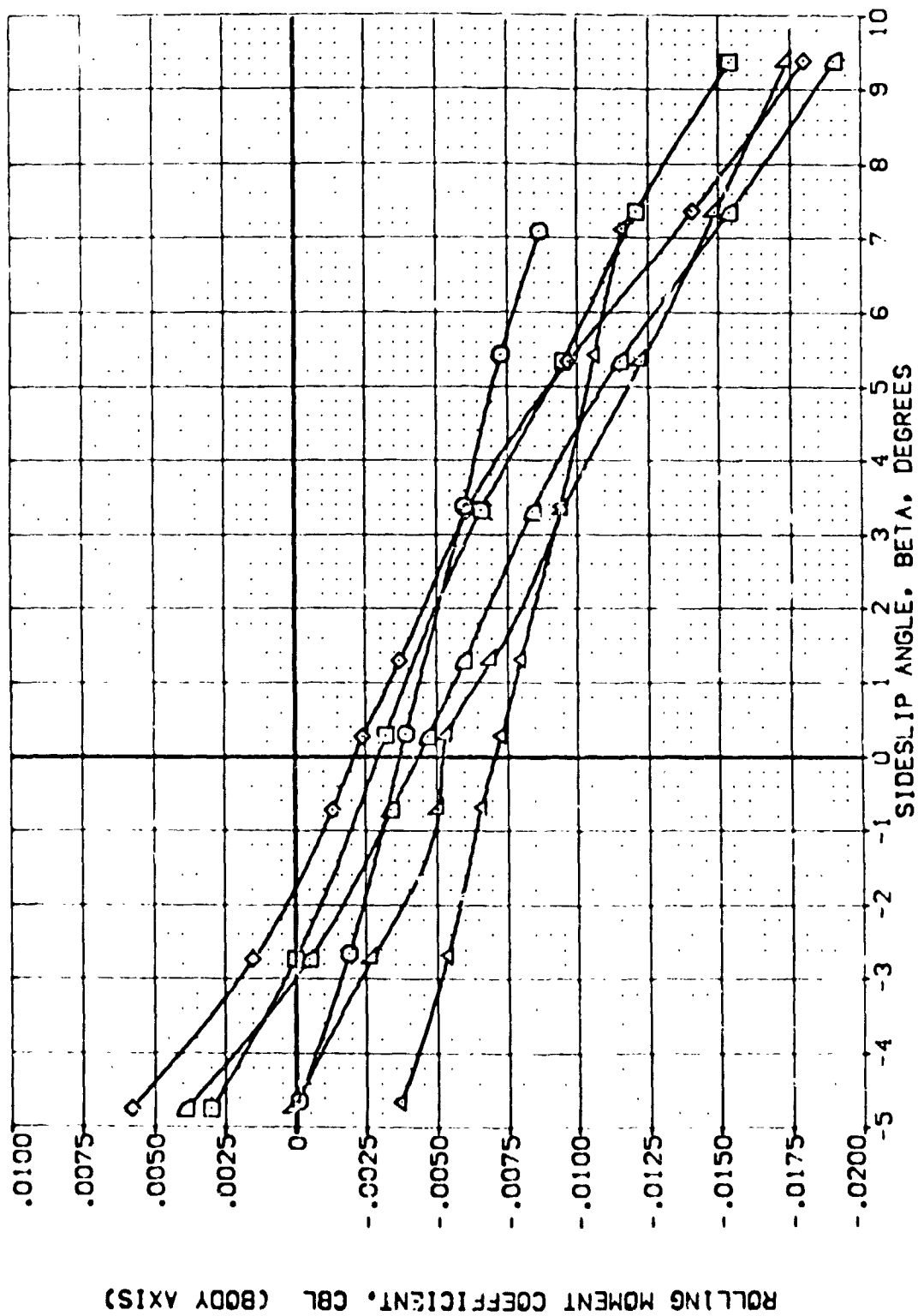


FIG. 20 RUDDER EFFECTS, SPEEDBRAKE 55 DEGREES

(A) VACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON	RV/L	ALPHA	RUDDER	BDFLAP	SPOBRK	REFERENCE INFORMATION
[AELA29]	ARC 87-747 DASEC B C M F V1	NON	RV/L	.000	-10.000	-11.700	55.000	SREF 2.4210 50.FT.
[AELA30]	ARC 87-747 DASEC B C M F V1	NON	RV/L	10.000	-10.000	-11.700	55.000	LREF 14.2440 IN.
[AEL031]	ARC 87-747 DASEC B C M F V1	NON	RV/L	20.000	-10.000	-11.700	55.000	BREF 28.1004 IN.
[AEL032]	ARC 87-747 DASEC B C M F V1	NON	RV/L	.000	-20.000	-11.700	46.000	XPRP 32.3010 IN.
[AEL033]	ARC 87-747 DASEC B C M F V1	NON	RV/L	10.000	-20.000	-11.700	46.000	YPRP 11.2500 IN.
[AELA34]	ARC 87-747 DASEC B C M F V1	NON	RV/L	20.000	-20.000	-11.700	46.000	ZPRP 11.2500 IN.
								SCALE .0300

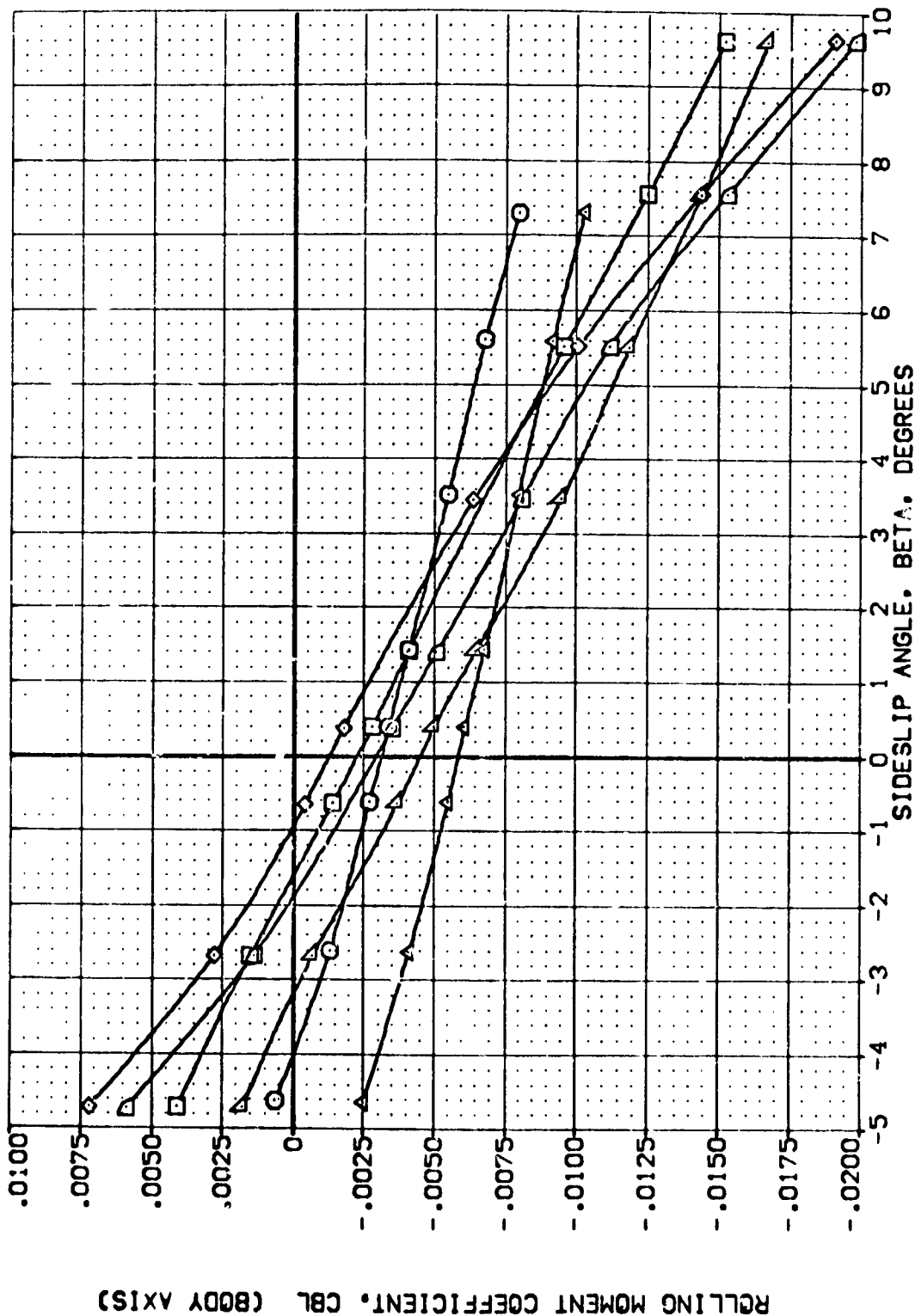


FIG. 20 RUDDER EFFECTS, SPEEDBRAKE 55 DEGREES

(B)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEED	REFERENCE INFORMATION
[AELAZ3]	□	ARC 87-747 D-53C B C M F VI V	0.000	-10.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[AELAC3]	○	ARC 87-747 C M F VI V	10.000	-10.000	-11.700	55.000	LREF 14.2440 IN.
[AELC33]	△	ARC 87-747 C M F VI V	20.000	-10.000	-11.700	55.000	BREF 28.1004 IN.
[AELC33]	△	ARC 87-747 C M F VI V	10.000	-20.000	-11.700	45.000	XMRP 32.3010 IN.
[AELC33]	△	ARC 87-747 C M F VI V	20.000	-20.000	-11.700	45.000	YMRP 11.2500 IN.
[AELC33]	△	ARC 87-747 D-53C B C M F VI V	20.000	-20.000	-11.700	45.000	SCALE .0300

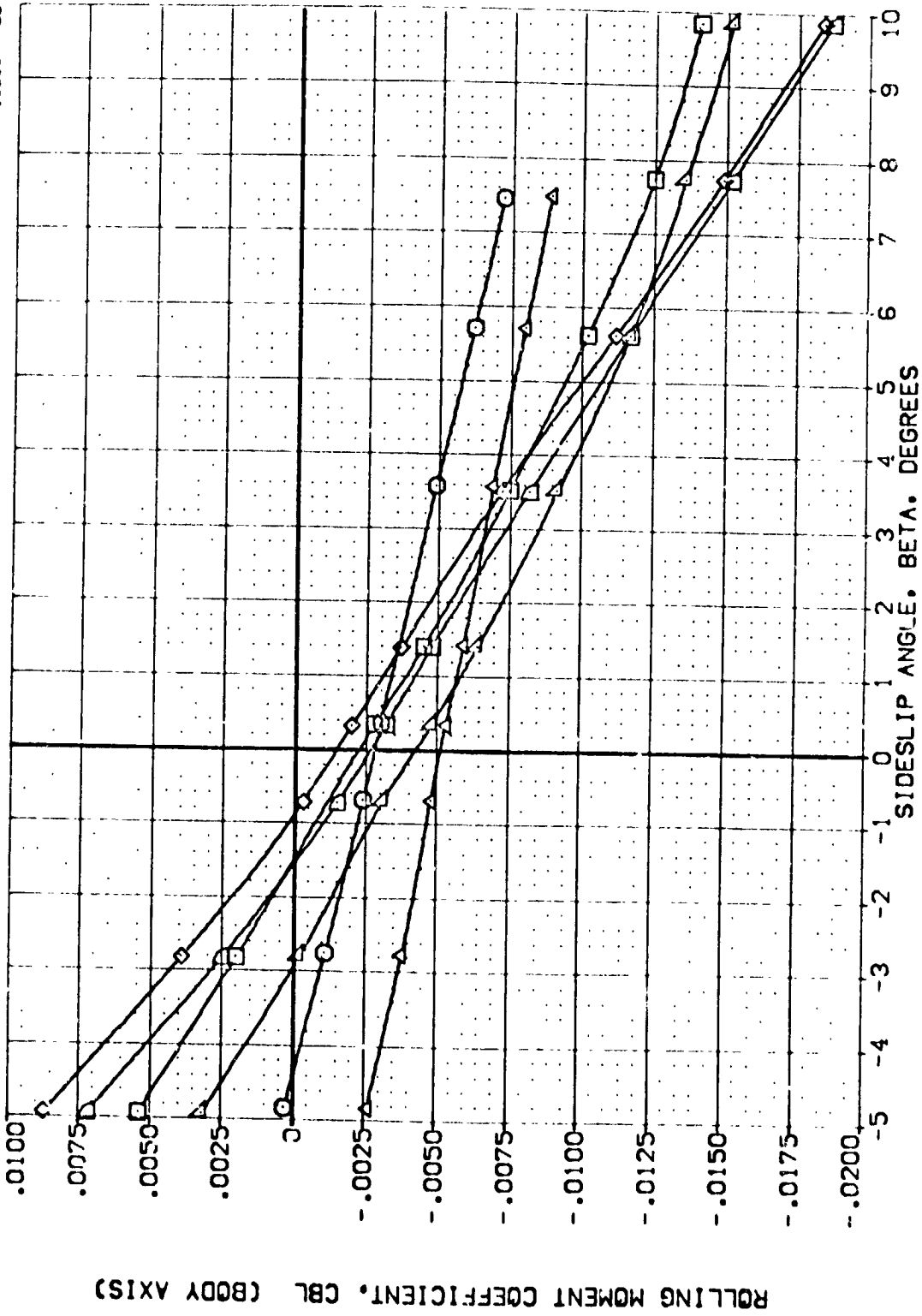


FIG. 20 RUDDER EFFECTS, SPEEDBRAKE 55 DEGREES

(COMACH = 3.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
[AEL046]	ARC 87-747 BASSC B C H F V1 V	0.000	-10.000	-11.700	85.000	SREF 2.4210 SQ.FT.
[AEL047]	ARC 87-747 BASSC B C H F V1 V	10.000	-10.000	-11.700	85.000	LREF 14.2440 IN.
[AEL048]	ARC 87-747 BASSC B C H F V1 V	20.000	-10.000	-11.700	85.000	BREF 28.1004 IN.
						YMRP 32.3010 IN.
						ZMRP .0000 IN.
						SCALE 11.2500 IN.
						SCALE .0300

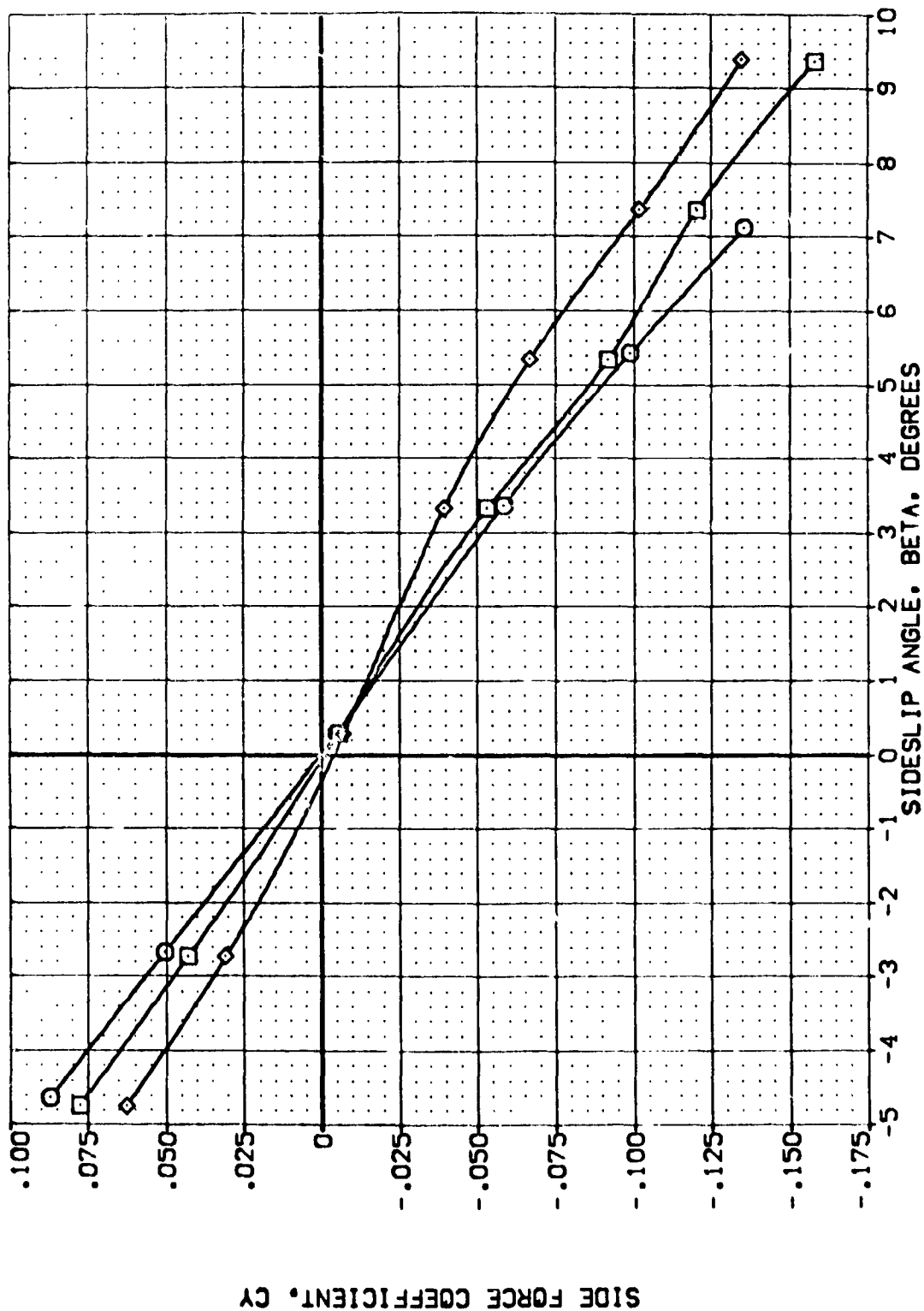


FIG. 21 RUDDER EFFECTS, SPEEDBRAKE 85 DEGREES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOG LAP	SPODBRK	REFERENCE INFORMATION
(AE, 046)	ARC 87-747 DAS3C B C M F VI V	.000	-10.000	-11.700	85.000	SREF 2.4210 SQ.FT.
(AE, 047)	ARC 87-747 DAS3C B C M F VI V	10.000	-10.000	-11.700	85.000	LRFF 14.2440
(AE, 048)	ARC 87-747 DAS3C B C M F VI V	20.000	-10.000	-11.700	85.000	BRFF 28.1004
						YMRD 32.3010
						ZMRD .0000
						SCALE 11.2500
						SCALE .0300

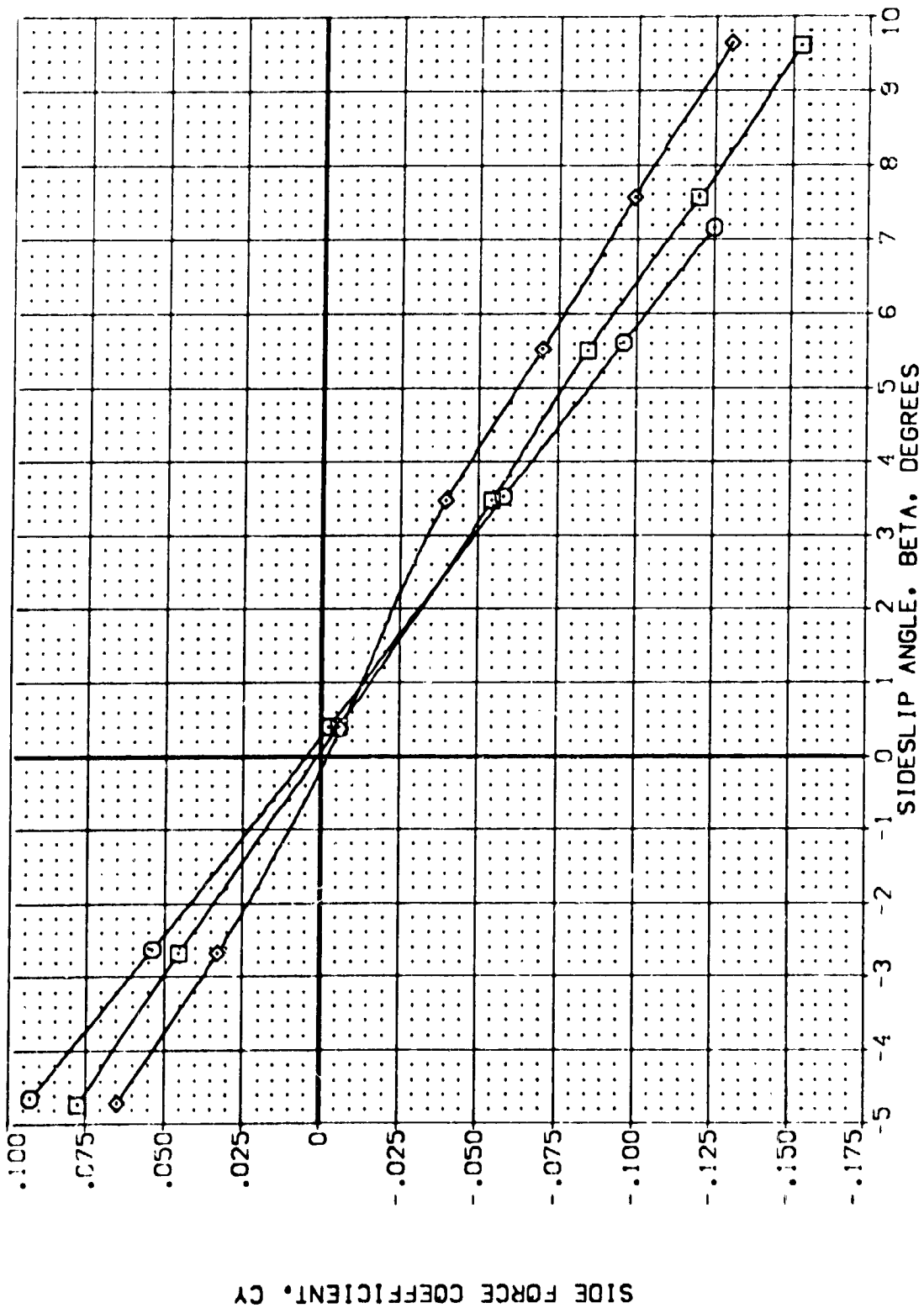


FIG. 21 RUDDER EFFECTS, SPEEDBRAKE 85 DEGREES

(B)MAC = 3.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA		RUDDER		BOLAP		SPOBRK		REFERENCE INFORMATION	
[AF 046]	( )	ARC 87-747	BASEC B C M F V	0.000	-10.000	-11.700	85.000	SREF	2.4210	SO.FT.			
[AF 047]	( )	ARC 87-747	BASEC B C M F V	10.000	-10.000	-11.700	85.000	LREF	14.2440	SO.FT.			
[AF 048]	( )	ARC 87-747	BASEC B C M F V	20.000	-10.000	-11.700	85.000	BREF	28.1004	SO.FT.			
								YREF	32.1010	SO.FT.			
								ZREF	11.7500	SO.FT.			
								SCALE	0.000	SCALE			

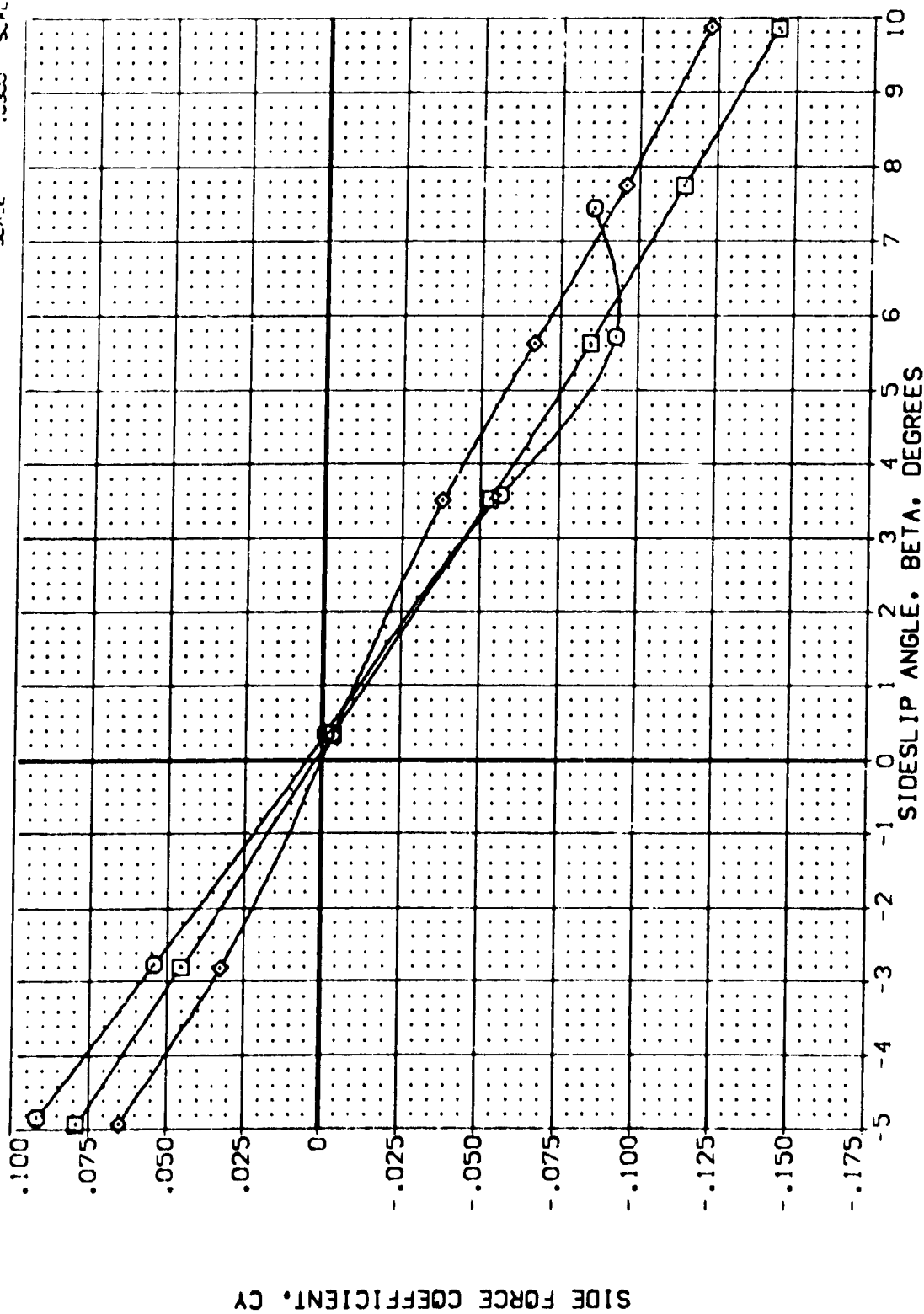


FIG. 21 RUDDER EFFECTS, SPEEDBRAKE 85 DEGREES

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOF LAP	SPODBRK	REFERENCE INFORMATION
(AEL046)	ARC 87-747 OAS3C B C M F VI	0.000	-10.000	-11.700	85.000	SREF 2.4210 SC.FT.
(AEL047)	ARC 87-747 OAS3C B C M F VI	10.000	-10.000	-11.700	85.000	LREF 14.2440
(AEL048)	ARC 87-747 OAS3C B C M F VI	20.000	-10.000	-11.700	85.000	BREF 28.1004
						XMRP 32.3010
						YMRP 0.0000
						ZMRP 11.2500
						SCALE 0.0300
						SCALE

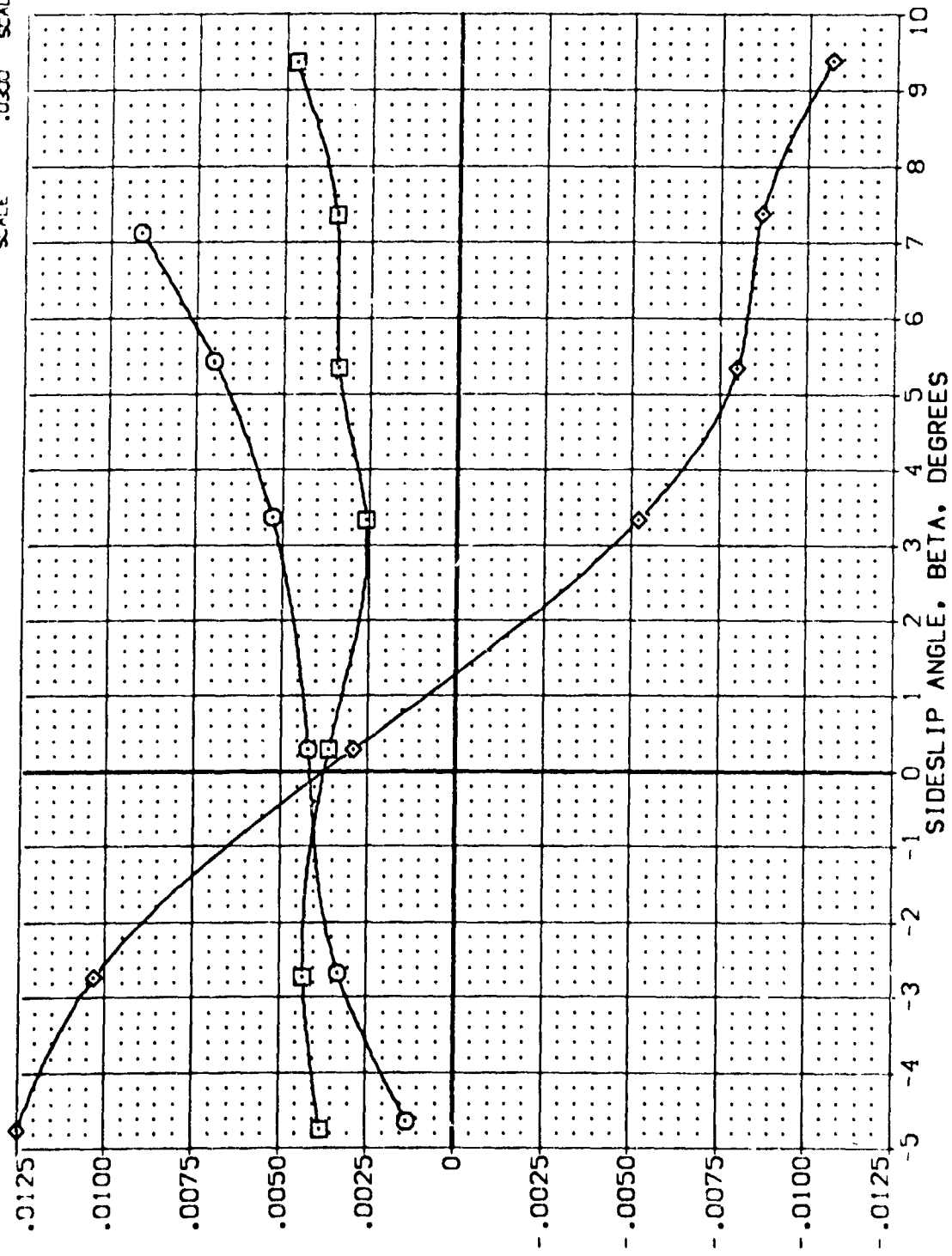


FIG. 21 RUDDER EFFECTS, SPEEDBRAKE 85 DEGREES

(A)MACH = 2.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
(AFL046)	ARC 87-747 QAS3C B C H F V1 V	SPRF 2.4210 SQ. FT.
(AFL047)	ARC 87-747 QAS3C B C H F V1 V	LREF 14.2440
(AFL048)	ARC 87-747 QAS3C B C H F V1 V	BREF 28.1004
		YMRP 32.3010
		ZMRP 11.7500
		SCALE .0300

ALPHA RUDDER BOFLAP SPEED

ALPHA	RUDDER	BOFLAP	SPEED
.000	-10.000	-11.700	85.000
10.000	-10.000	-11.700	85.000
20.000	-10.000	-11.700	85.000

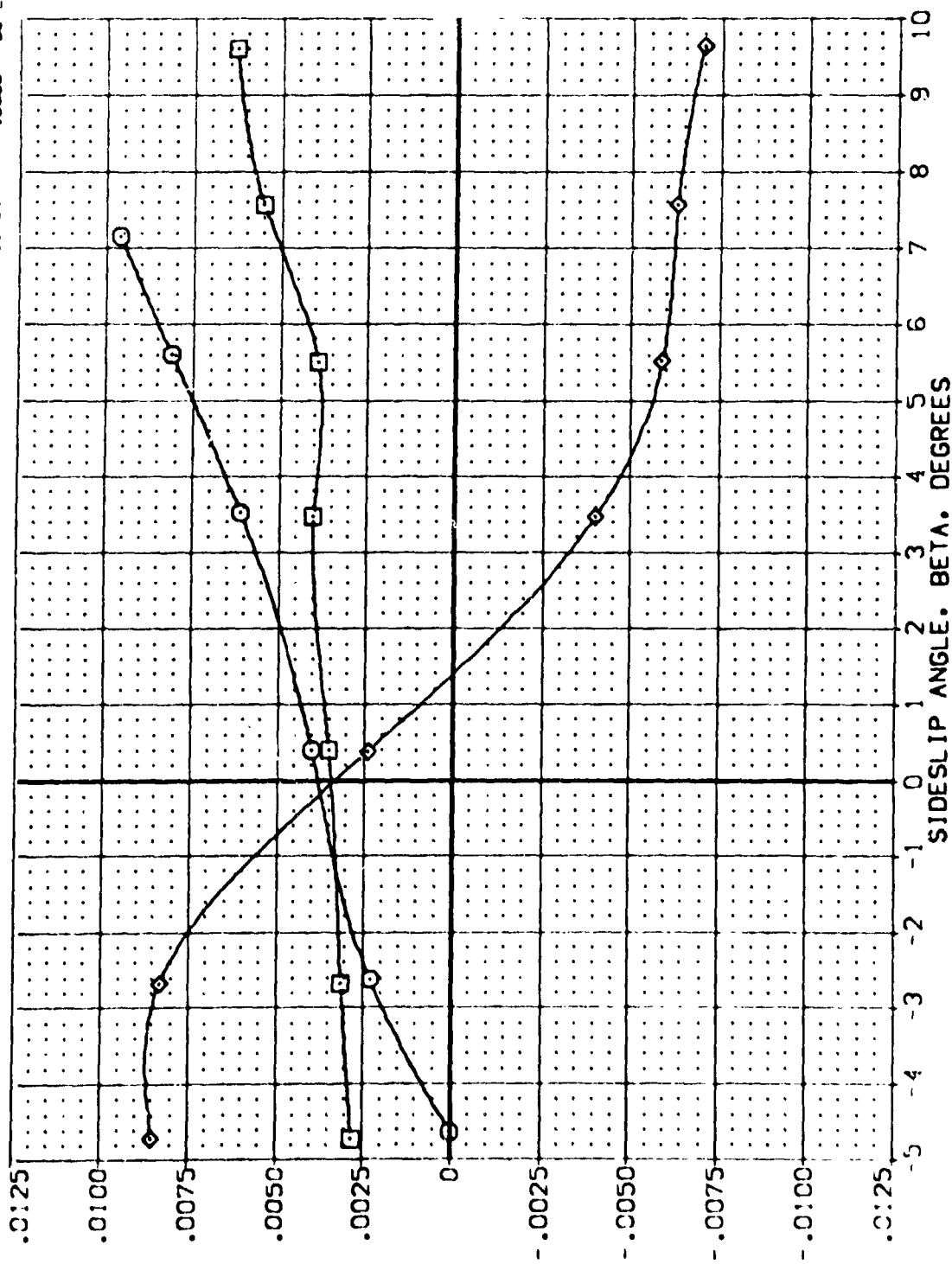


FIG. 21 RUDDER EFFECTS, SPEEDBRAKE 85 DEGREES

(3)MACH 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPODBRK	REFERENCE INFORMATION
(AEL046)	ARC 87-747 OAS3C B C M F V V	0.000	-10.000	-11.700	85.000	SREF 2.4210 SQ.FT.
(AEL047)	ARC 87-747 OAS3C B C M F V V	10.000	-10.000	-11.700	85.000	REF 14.2440
(AEL048)	ARC 87-747 OAS3C B C M F V V	20.000	-10.000	-11.700	85.000	REF 28.1004
						REF 32.3010
						REF 11.7500
						SCALE 1.0300

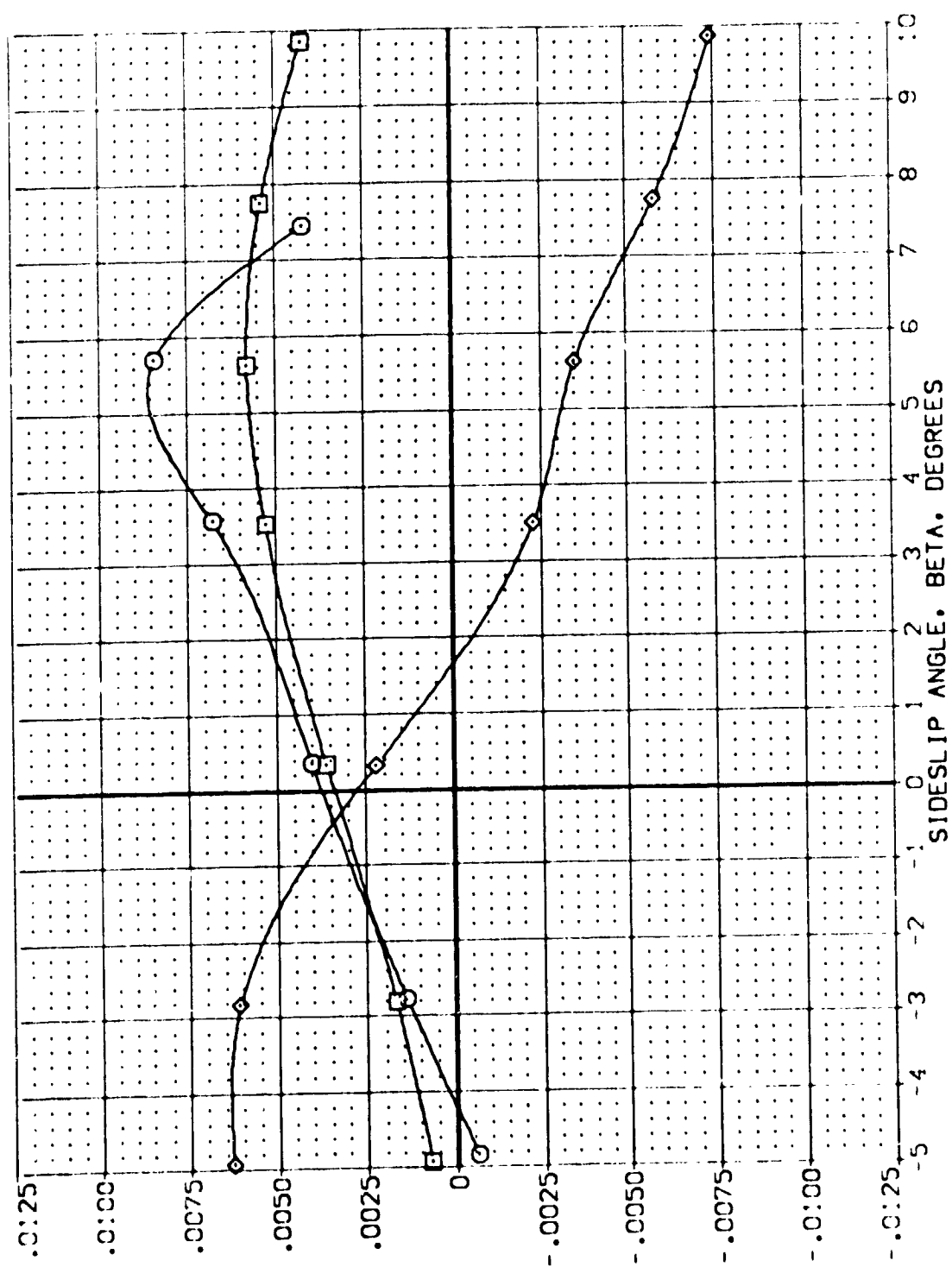
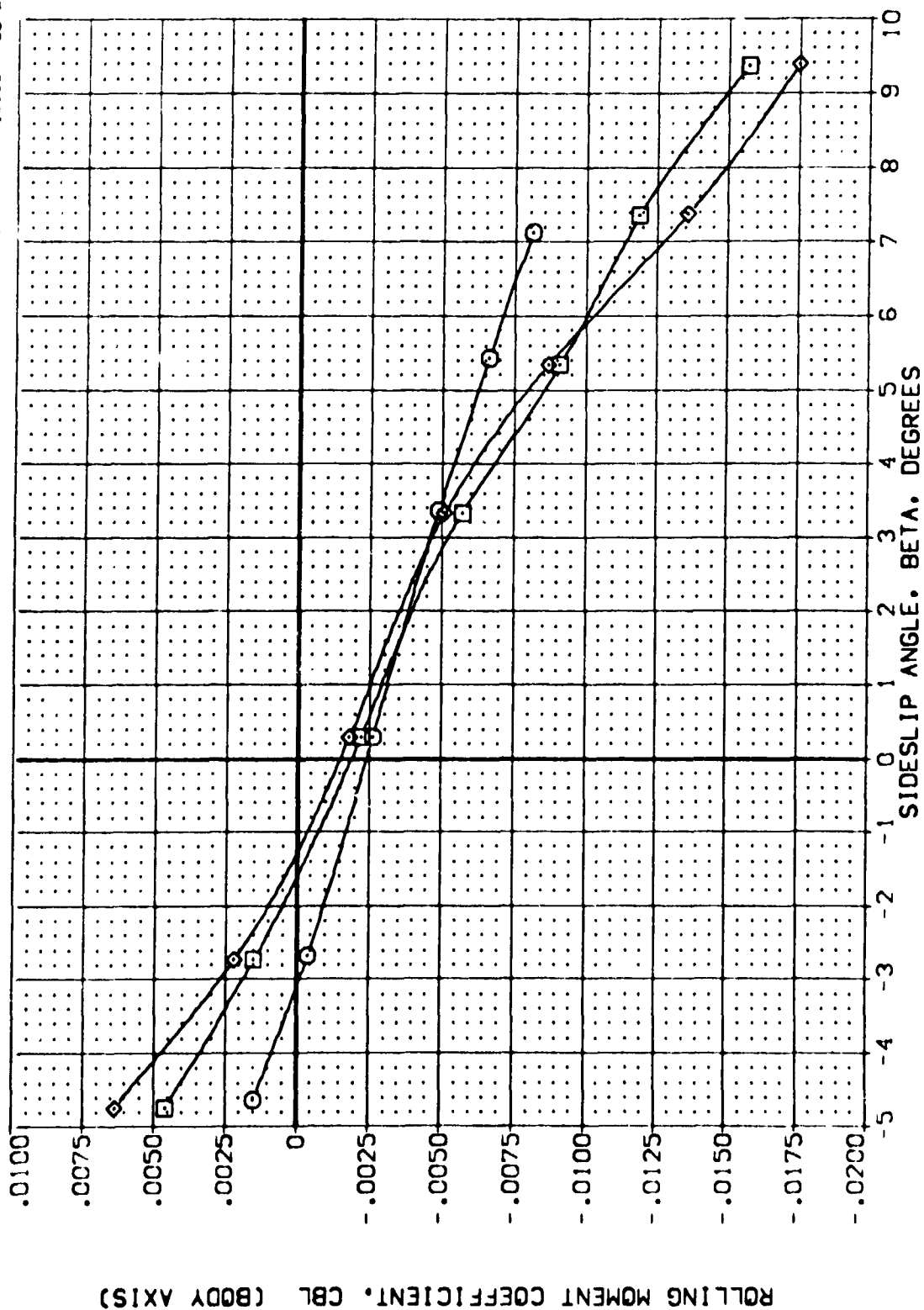


FIG. 21 RUDDER EFFECTS, SPEEDBRAKE 85 DEGREES

(C)YAC- = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPEEDBRK    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEEDBRK	REFERENCE INFORMATION
(AEL046)	ARC 87-747 DAS3C B C M F V	0.000	-10.000	-11.700	85.000	SREF 2.4210 SC.FT.
(AEL047)	ARC 87-747 DAS3C B C M F V	10.000	-10.000	-11.700	85.000	LREF 14.2440
(AEL048)	ARC 87-747 DAS3C B C M F V	20.000	-10.000	-11.700	85.000	BREF 28.1004
						XMRP 32.3010
						YMRP 11.0000
						ZMRP 11.2500
						SCALE .0300



DATA S	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOG LAP	SPEED	REFERENCE INFORMATION
AELO46	□	ARC 87-747 OAS3C B C M F V1	0.000	-10.000	-11.700	85.000	SREF 7.4210 SC.1.1
AELO47	○	ARC 87-747 OAS3C B C M F V1	10.000	-10.000	-11.700	85.000	REF 14.2440
AELO48	○	ARC 87-747 OAS3C B C M F V1	20.000	-10.000	-11.700	85.000	REF 28.1004
							REF 32.3010
							REF 11.7000
							SCALE 0.000
							SCALE 0.000

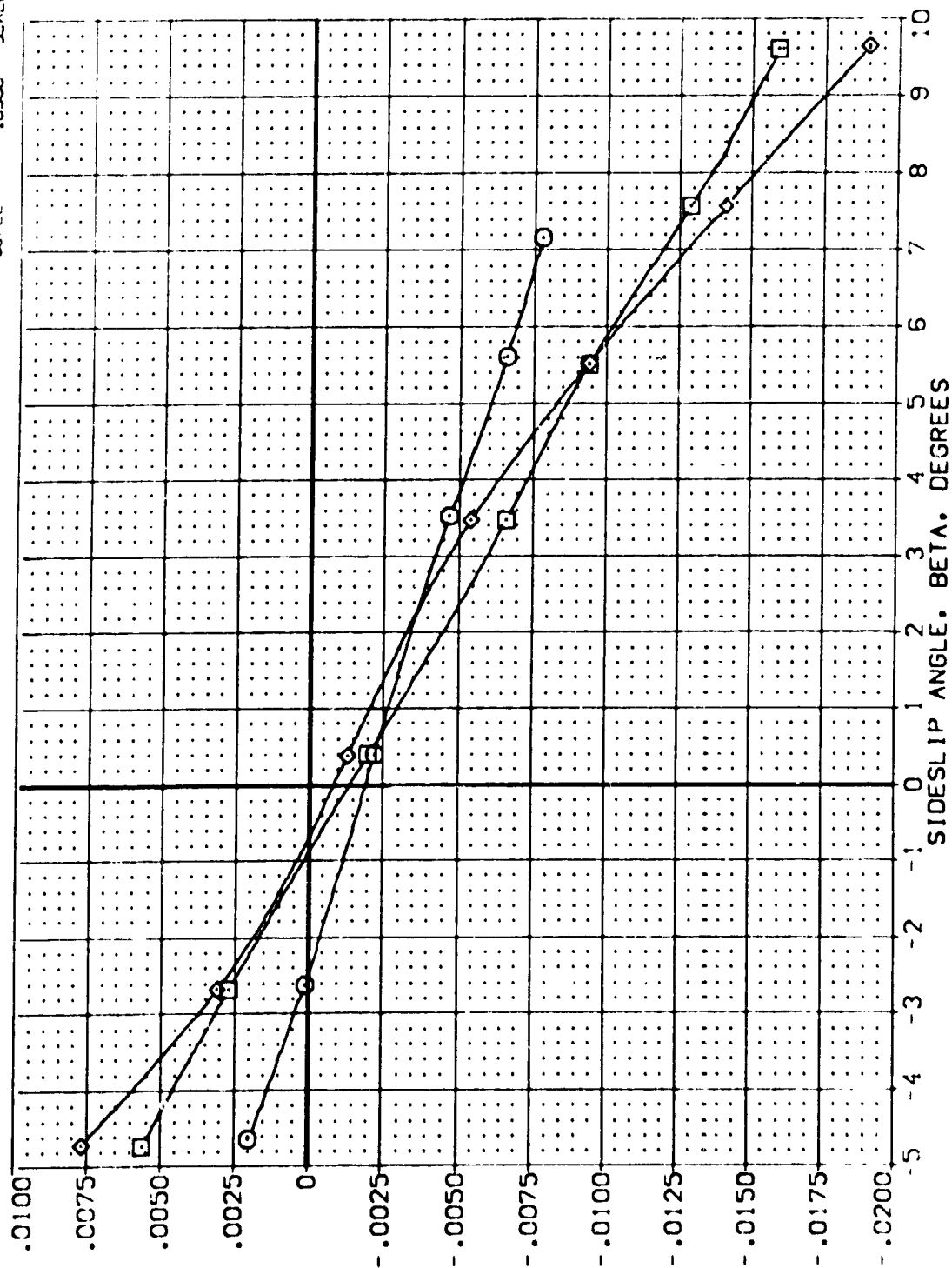


FIG. 21 RUDDER EFFECTS, SPEEDBRAKE 85 DEGREES

(B) MAC = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOF LAP	SPEED	REFERENCE INFORMATION
(AEL045)	ARC 87-747 DASSC B C M F V1 V	10.000	-10.000	-11.700	85.000	SREF 2.4210 SQ.FT.
(AEL047)	ARC 87-747 DASSC B C M F V1 V	10.000	-10.000	-11.700	85.000	LREF 14.2440
(AEL048)	ARC 87-747 DASSC B C M F V1 V	20.000	-10.000	-11.700	85.000	BREF 28.1004
						XREF 32.3010
						YREF 11.3000
						ZREF 11.3000
						SCALE .3000

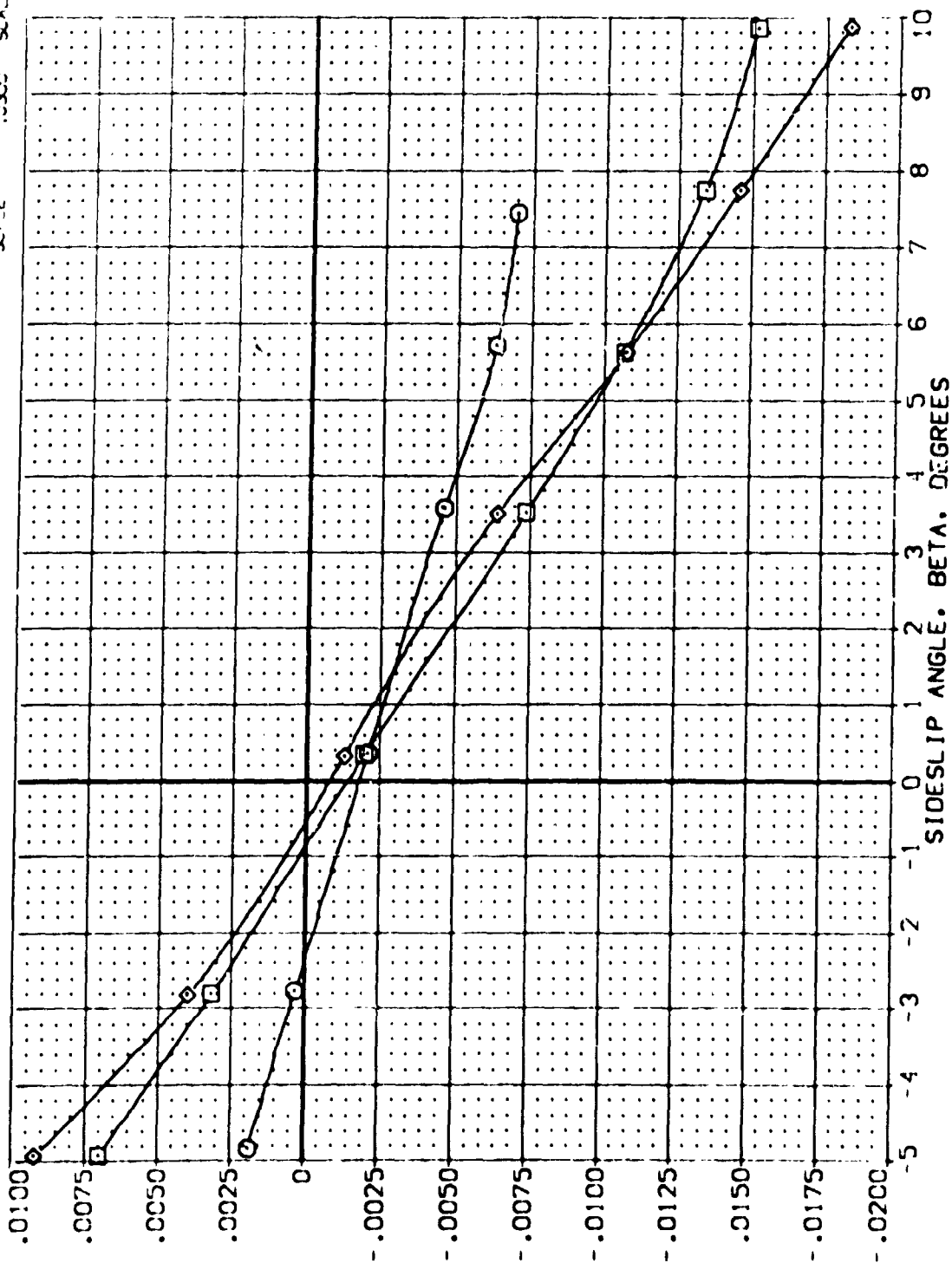
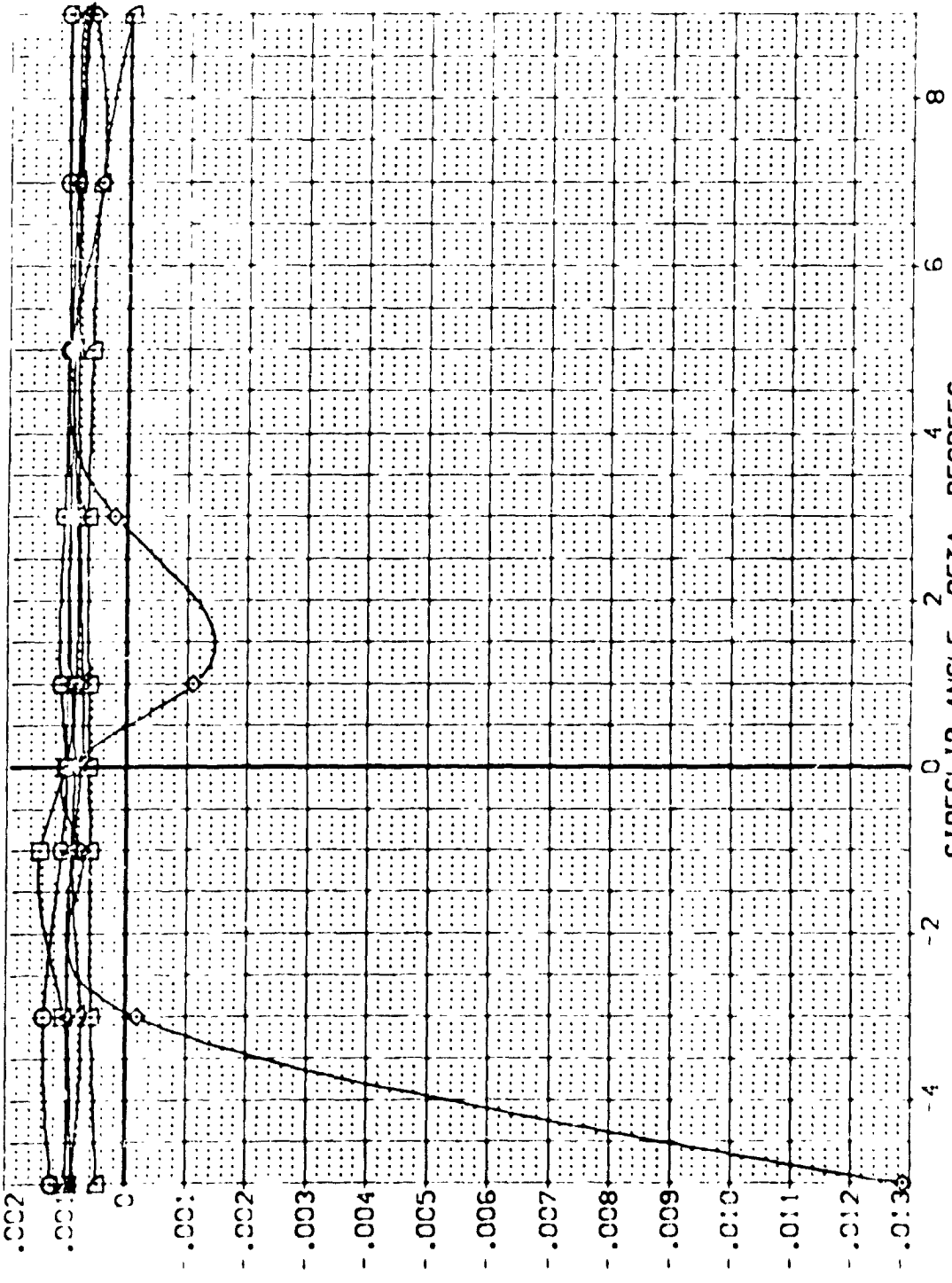


FIG. 21 RUDDER EFFECTS, SPEEDBRAKE 85 DEGREES

(C)MAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOG LAP	SPOBRN	REFERENCE INFORMATION
ARC 87-747	0453C B C C C C C C	0.00	-10.000	-11.700	25.000	SPR 1 2.4210
ARC 87-747	0453C B C C C C C C	10.000	-10.000	-11.700	25.000	SPR 2 14.2440
ARC 87-747	0453C B C C C C C C	20.000	-10.000	-11.700	25.000	SPR 3 28.1004
ARC 87-747	0453C B C C C C C C	10.000	-20.000	-11.700	25.000	SPR 4 37.9000
ARC 87-747	0453C B C C C C C C	20.000	-20.000	-11.700	25.000	SPR 5 11.2500
ARC 87-747	0453C B C C C C C C	20.000	-20.000	-11.700	25.000	SPR 6 11.2500
ARC 87-747	0453C B C C C C C C	20.000	-20.000	-11.700	25.000	SPR 7 11.2500
ARC 87-747	0453C B C C C C C C	20.000	-20.000	-11.700	25.000	SPR 8 11.2500
ARC 87-747	0453C B C C C C C C	20.000	-20.000	-11.700	25.000	SPR 9 11.2500
ARC 87-747	0453C B C C C C C C	20.000	-20.000	-11.700	25.000	SPR 10 11.2500



SIDESLIP ANGLE, BETA, DEGREES

FIG. 22 RUDDER DERIVATIVES, SPEEDBRAKE 25 DEGREES

(MACH) = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOFLAP	SPODBK	REFERENCE INFORMATION
ABC 87-747	0453C B C M F VI V	0.000	-10.000	-11.700	20.000	SRF 2.4210
ABC 87-747	0453C B C M F VI V	10.000	-10.000	-11.700	20.000	SRF 14.7440
ABC 87-747	0453C B C M F VI V	20.000	-10.000	-11.700	20.000	SRF 78.1000
ABC 87-747	0453C B C M F VI V	10.000	-20.000	-11.700	20.000	SRF 30.3000
ABC 87-747	0453C B C M F VI V	20.000	-20.000	-11.700	20.000	SRF 11.0000
						SCALE 11.0000

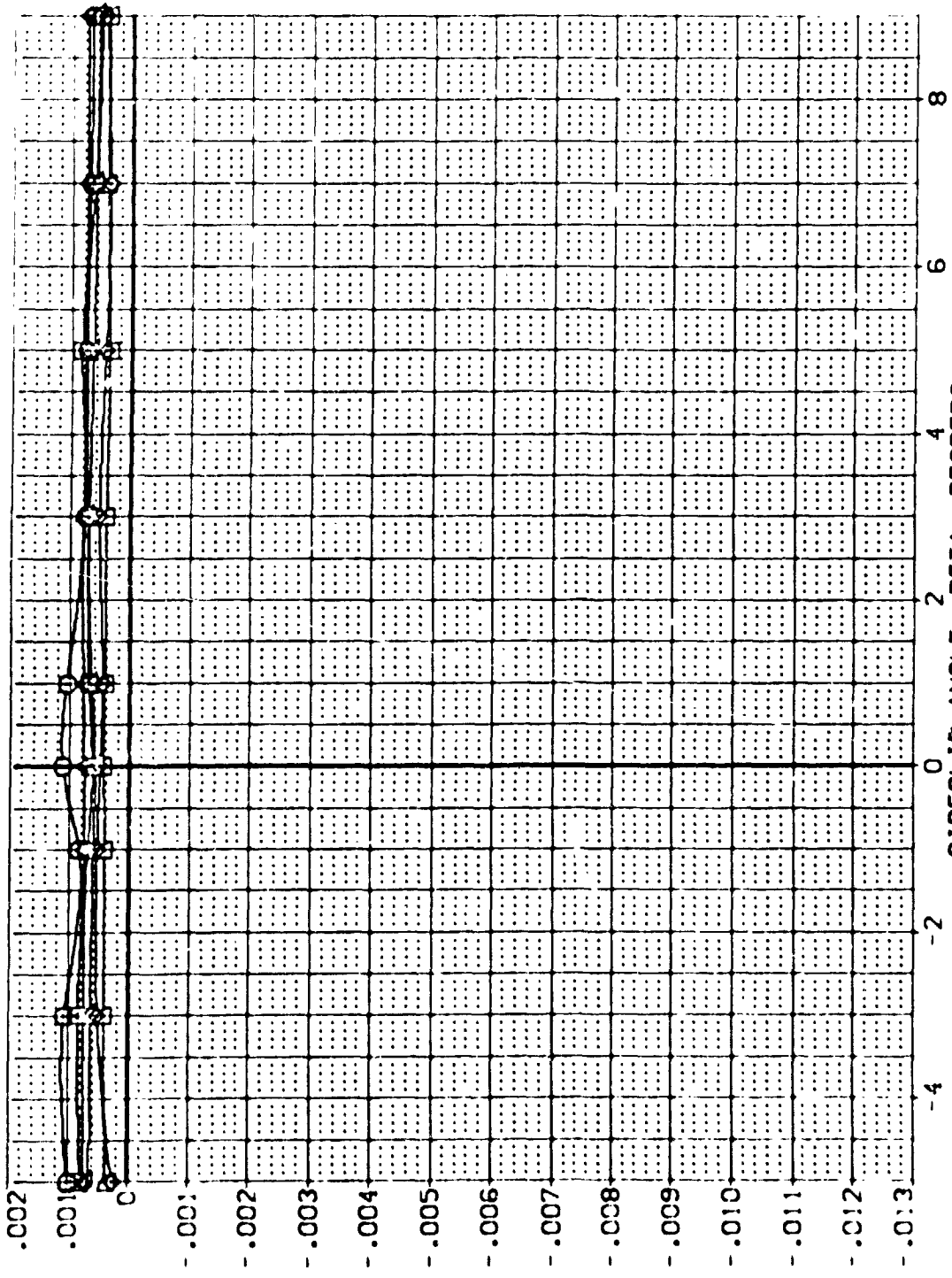


FIG. 22 RUDDER DERIVATIVES, SPEEDBRAKE 25 DEGREES

(3)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOE LAR	SPEED	REFERENCE INFORMATION
(VE-005)	ARC 87-747 OASXC B C M F V	0.000	-10.000	-11.700	25.000	SRF 2.4210 SCALE
(VE-006)	ARC 87-747 OASXC B C M F V	10.000	-10.000	-11.700	25.000	REF 14.2440
(VE-007)	ARC 87-747 OASXC B C M F V	20.000	-10.000	-11.700	25.000	REF 28.0000
(VE-008)	ARC 87-747 OASXC B C M F V	10.000	-25.000	-11.700	25.000	REF 37.3000
(VE-009)	ARC 87-747 OASXC B C M F V	20.000	-25.000	-11.700	25.000	REF 11.7500
(VE-010)	ARC 87-747 OASXC B C M F V	20.000	-25.000	-11.700	25.000	REF 11.7500

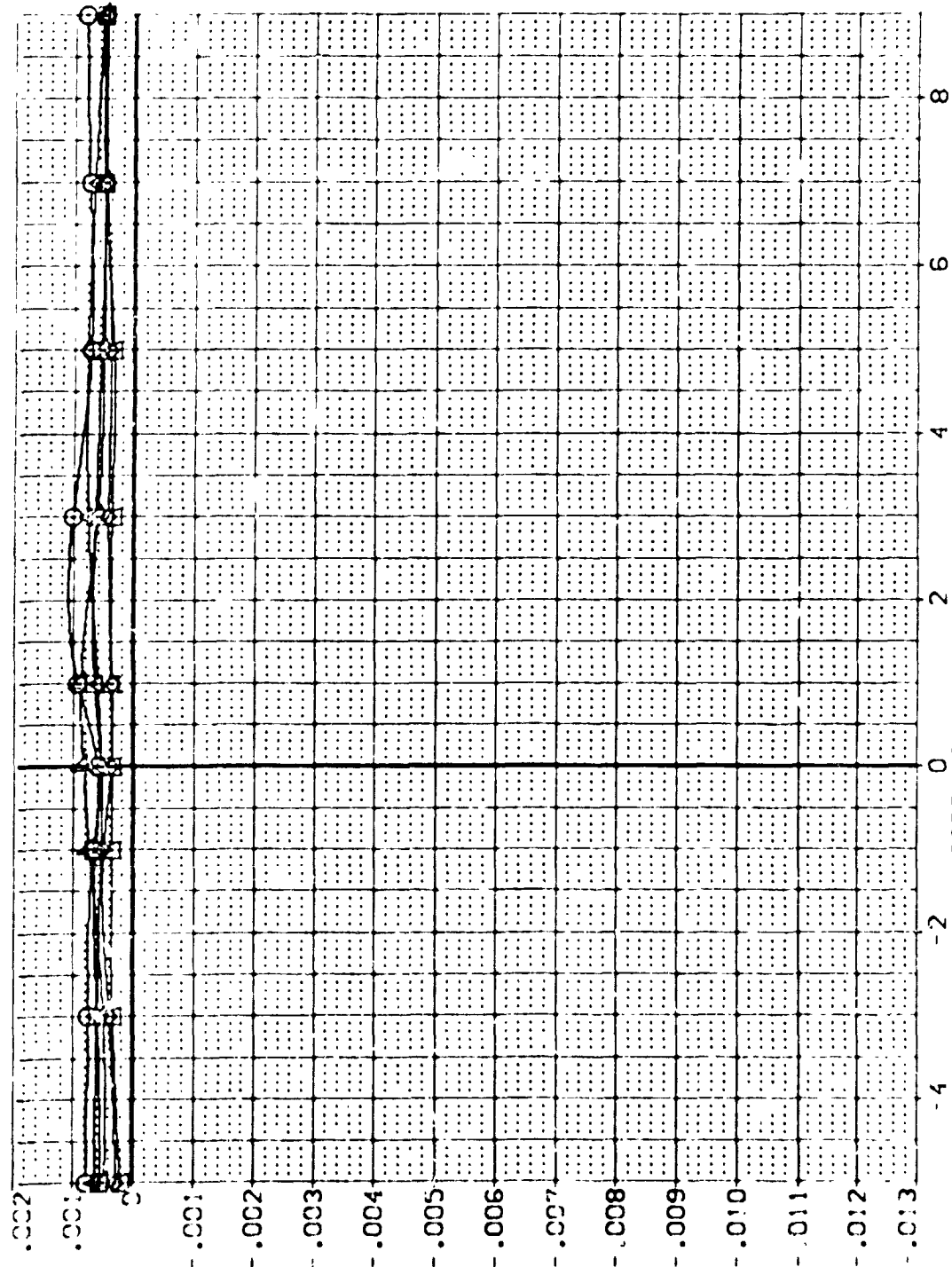


FIG. 22 RUDDER DERIVATIVES, SPEEDBRAKE 25 DEGREES



YAWING MOMENT DUE TO RUDDER, DCYNDR, PER DEGREE, (BODY AXIS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOFLAP	SPOBRK	REFERENCE INFORMATION
[VELO35]	ARC 87-747 OAS3C B C H F VI V	0.000	-10.000	-11.700	25.000	SRFF 2.4210 SC.FT.
[VELO36]	ARC 87-747 OAS3C B C H F VI V	10.000	-10.000	-11.700	25.000	LRFF 14.2440
[VELO37]	ARC 87-747 OAS3C B C H F VI V	20.000	-10.000	-11.700	25.000	BRFF 28.1004
[VELO38]	ARC 87-747 OAS3C B C H F VI V	10.000	-25.000	-11.700	25.000	YMRP 32.2010
[VELO39]	ARC 87-747 OAS3C B C H F VI V	20.000	-25.000	-11.700	25.000	ZMRP 11.0000
[VELO40]	ARC 87-747 OAS3C B C H F VI V	20.000	-25.000	-11.700	25.000	SCALE 11.2500
						SCALE .0300

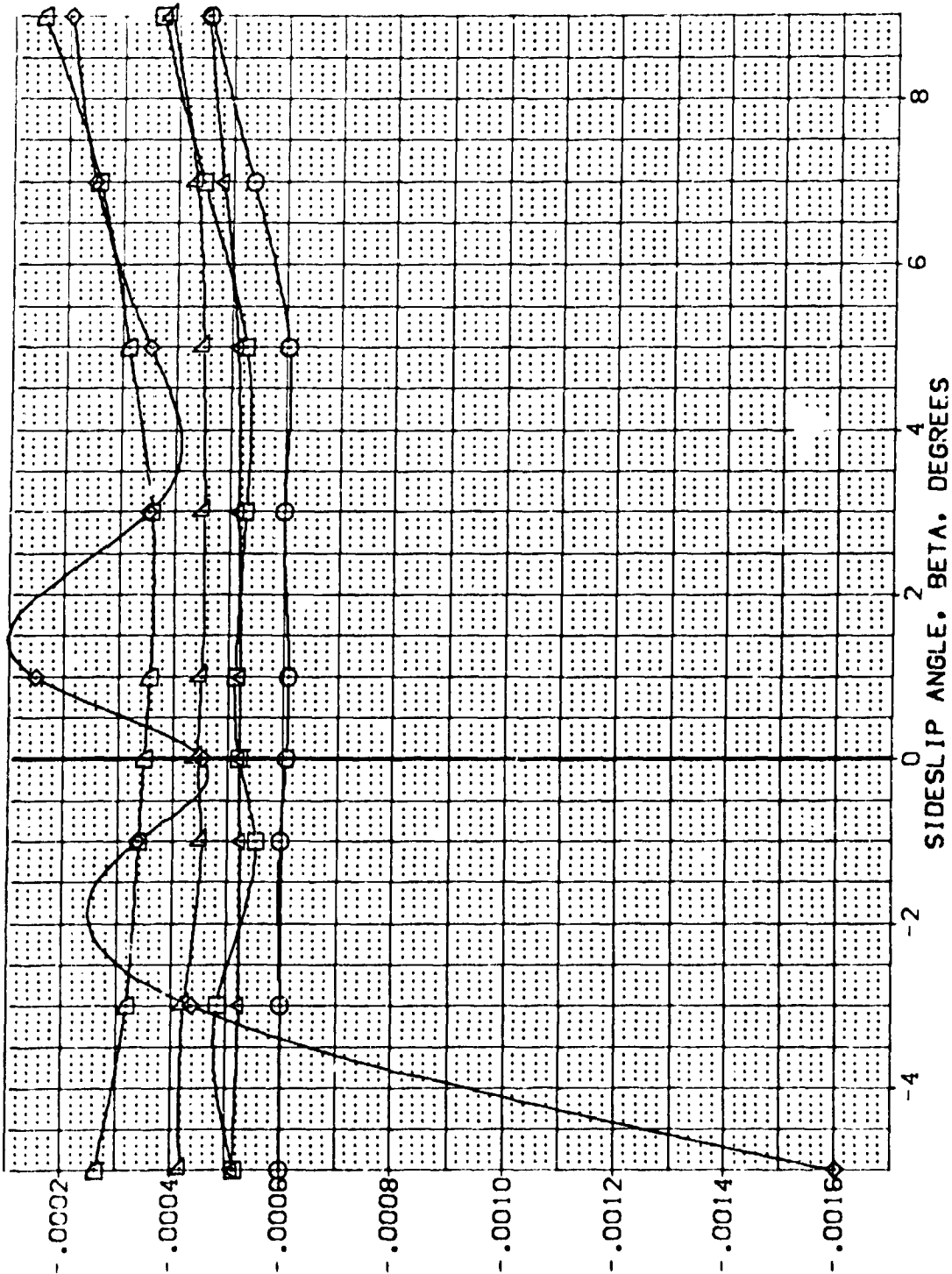


FIG. 22 RUDDER DERIVATIVES, SPEEDBRAKE 25 DEGREES

(A)MACH = 2.50

YAWING MOMENT DUE TO RUDDER, DCYNDR, PER DEGREE, (BODY AXIS)

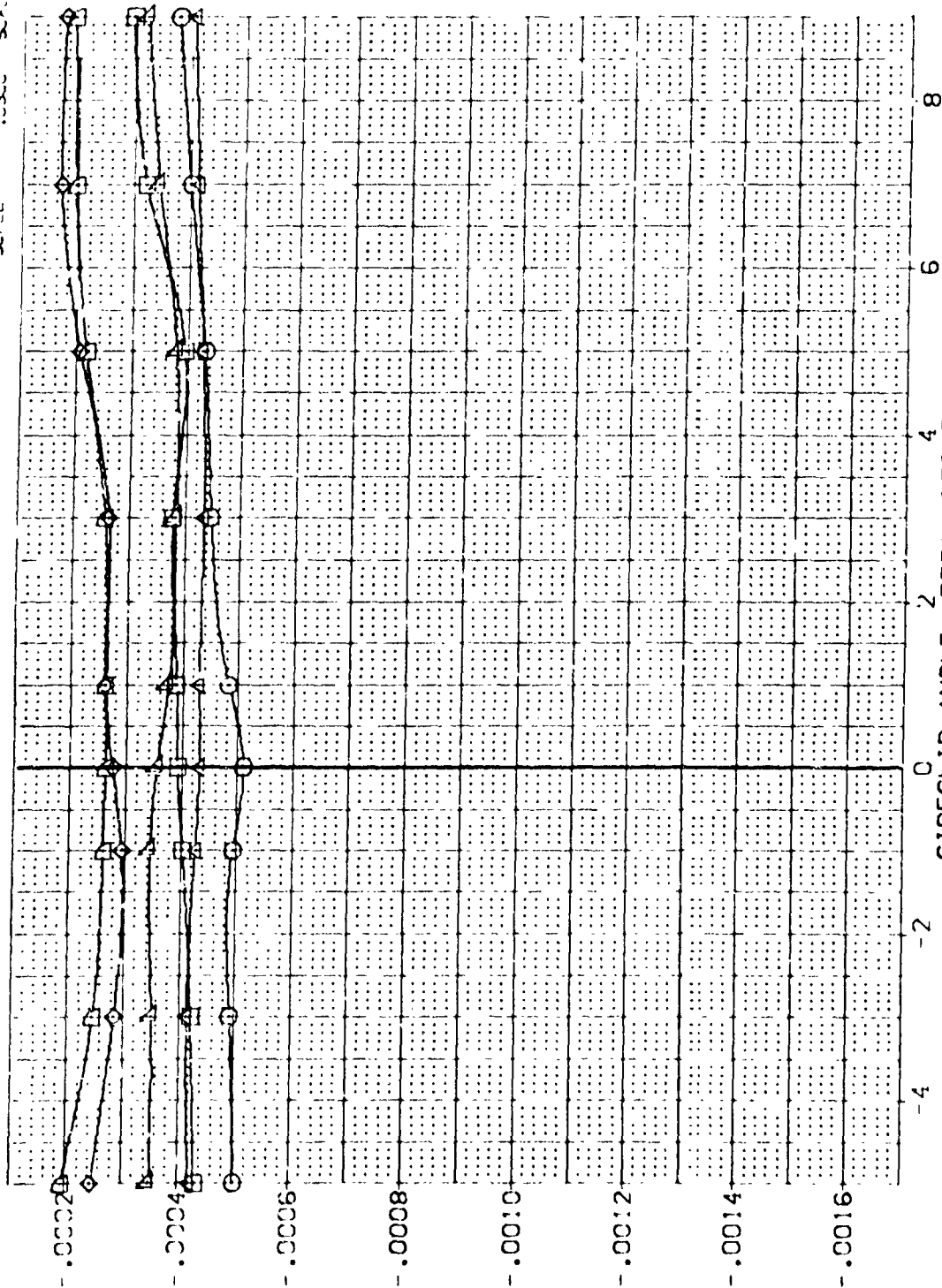


FIG. 22 RUDDER DERIVATIVES, SPEEDBRAKE 25 DEGREES

(3) 3.3



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BDLAP	SPOBRK	REFERENCE INFORMATION
(VELO03)	ARC 87-747 OAS3C B C C M F V I V	000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(VELO05)	ARC 87-747 OAS3C B C C M F V I V	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
(VELO07)	ARC 87-747 OAS3C B C C M F V I V	20.000	-10.000	-11.700	25.000	BREF 28.0004 IN.
(VELO09)	ARC 87-747 OAS3C B C C M F V I V	30.000	-10.000	-11.700	25.000	XREF 32.5010 IN.
(VELO11)	ARC 87-747 OAS3C B C C M F V I V	40.000	-10.000	-11.700	25.000	YREF 11.0000 IN.
(VELO13)	ARC 87-747 OAS3C B C C M F V I V	50.000	-10.000	-11.700	25.000	ZREF 11.2500 IN.
(VELO15)	ARC 87-747 OAS3C B C C M F V I V	60.000	-10.000	-11.700	25.000	SCALE .0300

ROLLING MOMENT DUE TO RUDDER, DCBLDR, PER DEGREE, (BODY AXIS)

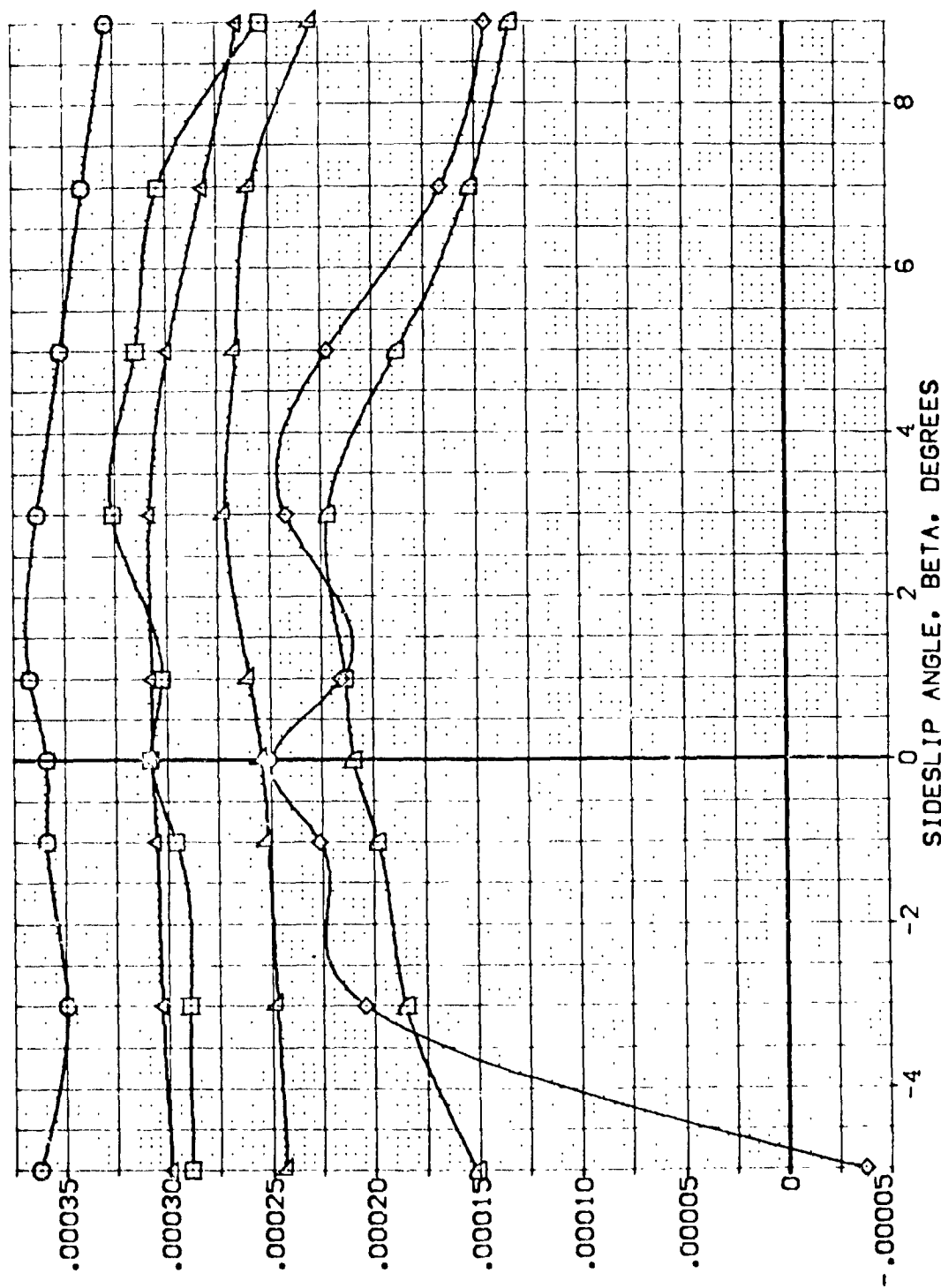


FIG. 22 RUDDER DERIVATIVES, SPEEDBRAKE 25 DEGREES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VEL033)	ARC 07-747 CASC B C M F VI V	0.000	-10.000	-11.700	25.000	SREF 2.4210 50.FT.
(VEL033)	ARC 07-747 CASC B C M F VI V	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
(VEL033)	ARC 07-747 CASC B C M F VI V	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
(VEL033)	ARC 07-747 CASC B C M F VI V	10.000	-25.000	-11.700	25.000	XREF 32.3010 IN.
(VEL033)	ARC 07-747 CASC B C M F VI V	10.000	-25.000	-11.700	25.000	YREF 11.0000 IN.
(VEL033)	ARC 07-747 CASC B C M F VI V	20.000	-25.000	-11.700	25.000	ZREF 11.2500 IN.
						SCALE .0300

ROLLING MOMENT DUE TO RUDDER, DCBLDR, PER DEGREE, (BODY AXIS)

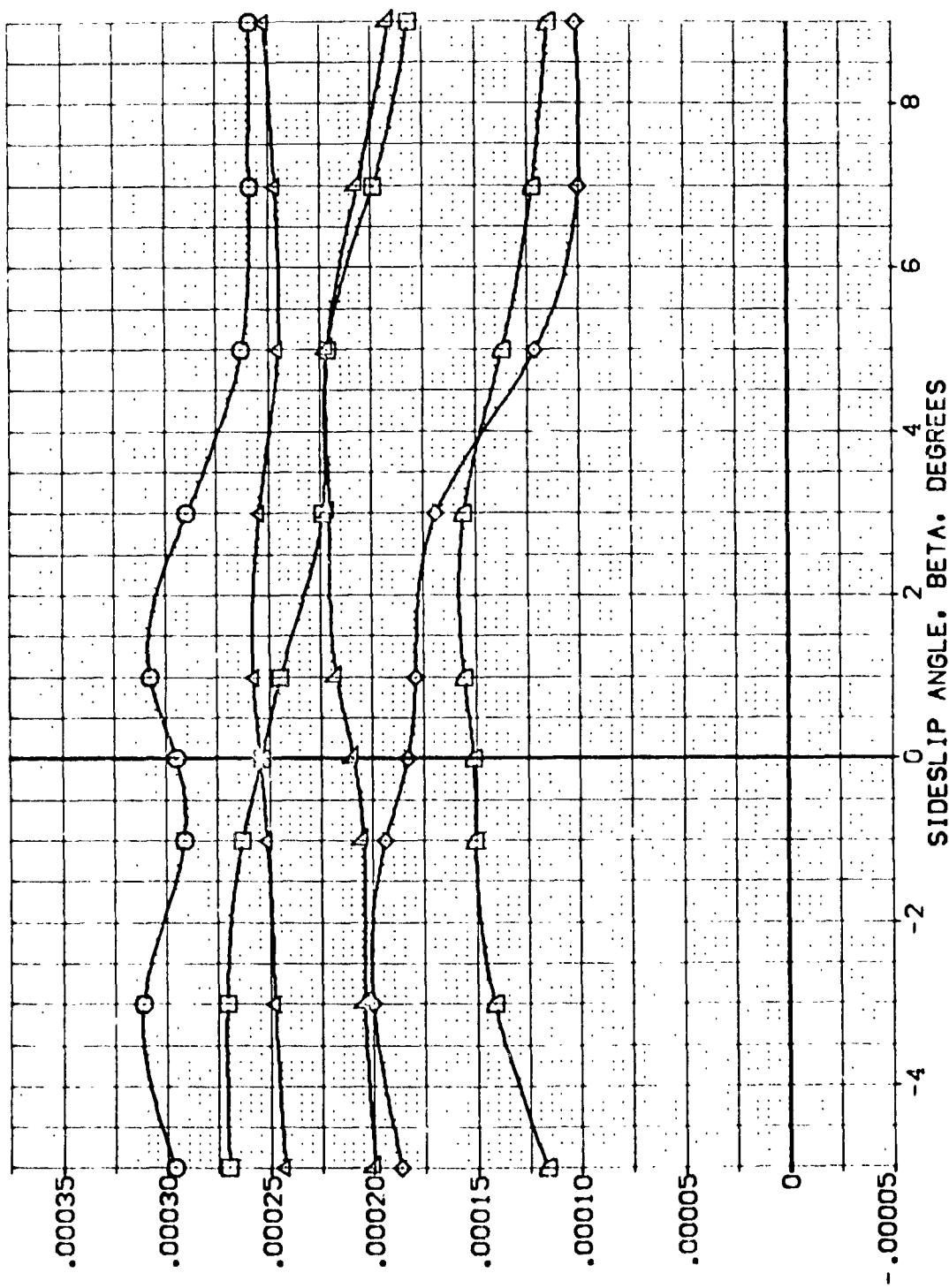


FIG. 22 RUDDER DERIVATIVES, SPEEDBRAKE 25 DEGREES

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOFLAP	SPEED	REFERENCE INFORMATION
[VEL005]	ARC 87-747 CA53C B C M F VI V	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[VEL003]	ARC 87-747 CA53C B C M F VI V	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
[VEL007]	ARC 87-747 CA53C B C M F VI V	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
[VEL051]	ARC 87-747 CA53C B C M F VI V	0.000	-25.000	-11.700	25.000	XMREF 32.3010 IN.
[VEL052]	ARC 87-747 CA53C B C M F VI V	10.000	-25.000	-11.700	25.000	YMREF 11.2500 IN.
[VEL053]	ARC 87-747 CA53C B C M F VI V	20.000	-25.000	-11.700	25.000	ZMREF 0.0000 IN.
						SCALE .0300

ROLLING MOMENT DUE TO RUDDER, DCBLDR, PER DEGREE, (BODY AXIS)

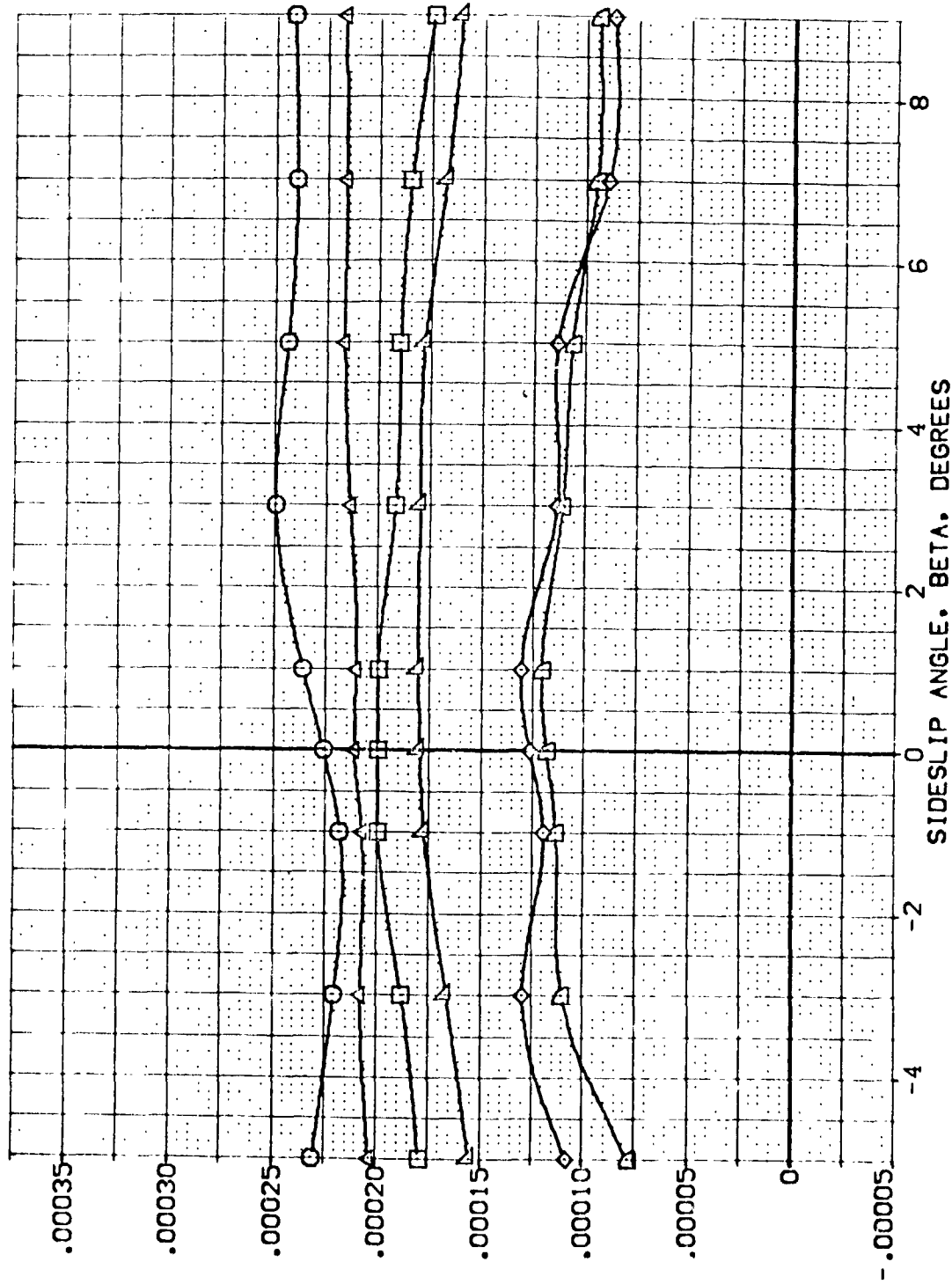
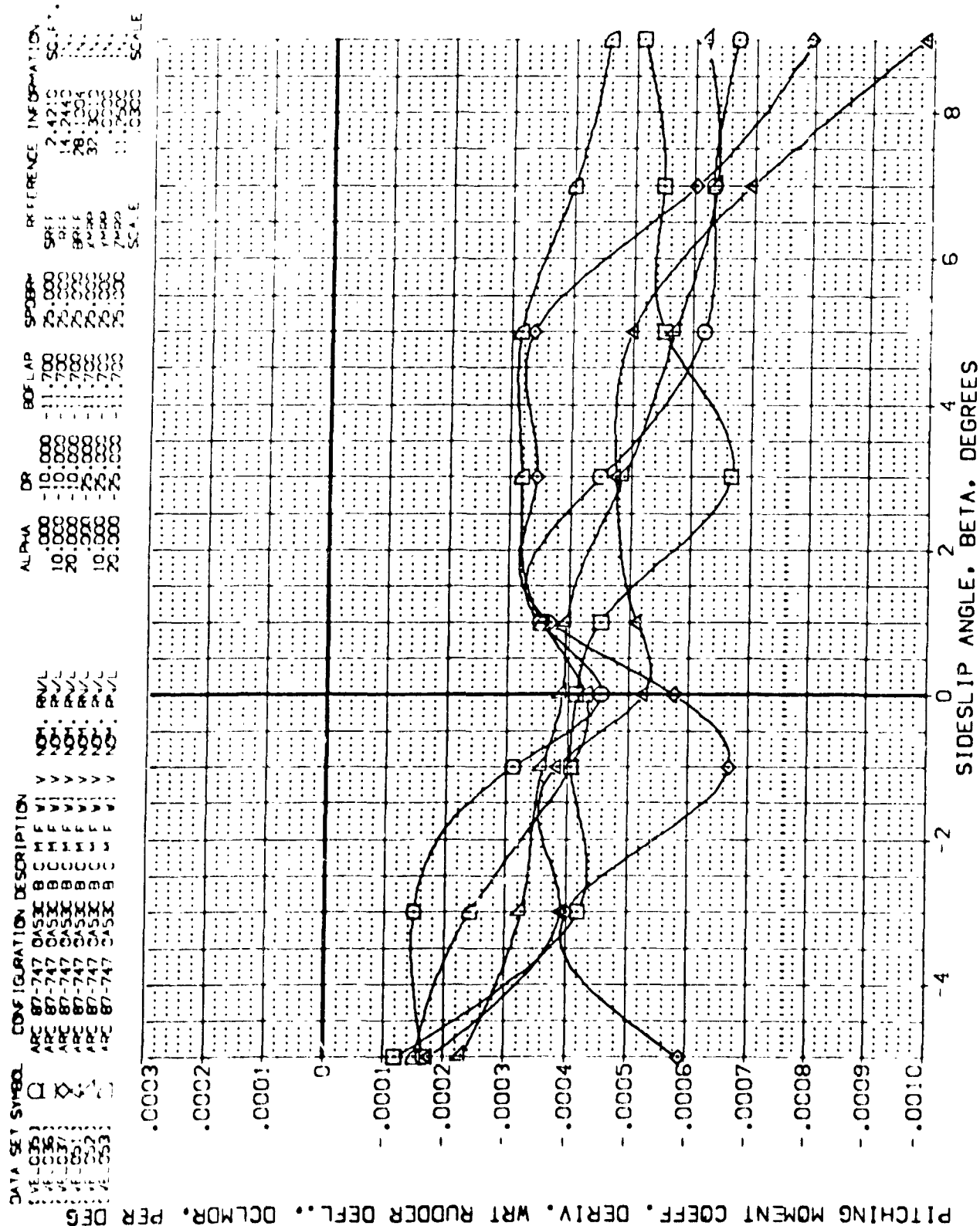


FIG. 22 RUDDER DERIVATIVES, SPEEDBRAKE 25 DEGREES

(CMACH = 3.50)







PITCHING MOMENT COEFF. DERIV. WRT RUDDER DEFL., DCLMDR. PER DEG

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOJ LAR	SPOBRK	REFERENCE INFORMATION
(VEL035)	ARC 87-747 DAS3C B C M F VI	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(VEL036)	ARC 87-747 DAS3C B C M F VI	10.000	-10.000	-11.700	25.000	LREF 14.2440
(VEL037)	ARC 87-747 DAS3C B C M F VI	20.000	-10.000	-11.700	25.000	BREF 28.1004
(VEL038)	ARC 87-747 DAS3C B C M F VI	10.000	-25.000	-11.700	25.000	XMRP 32.0000
(VEL039)	ARC 87-747 DAS3C B C M F VI	20.000	-25.000	-11.700	25.000	YMRP 11.2500
(VEL040)	ARC 87-747 DAS3C B C M F VI	20.000	-25.000	-11.700	25.000	SCALE .0300

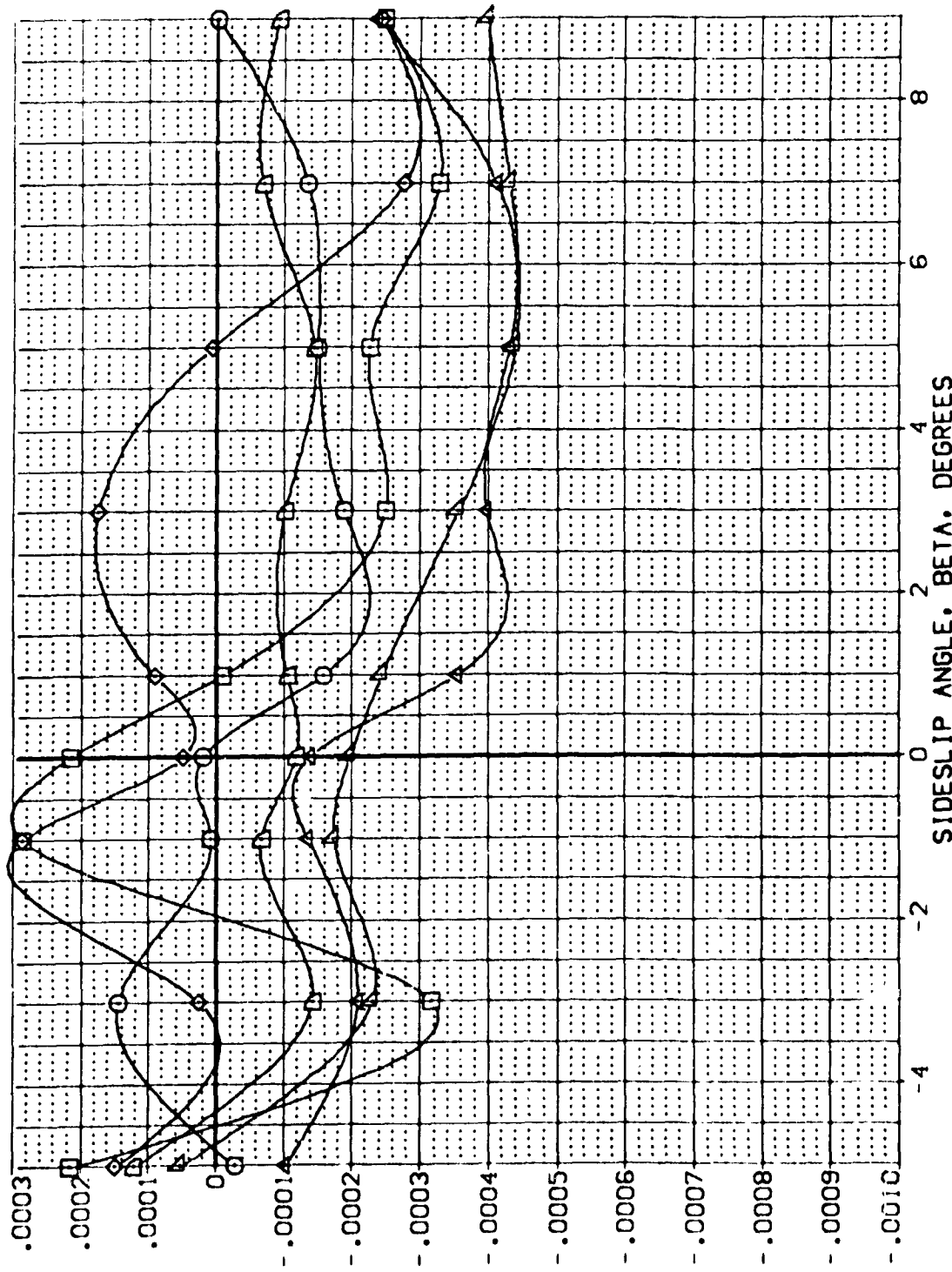


FIG. 22 RUDDER DERIVATIVES, SPEEDBRAKE 25 DEGREES

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VEL029)	ARC 87-747 D453C B C M F V I	0.00	-10.000	-11.700	55.000	SREF 2.4210 50.F.T.
(VEL030)	ARC 87-747 D453C B C M F V I	10.000	-10.000	-11.700	55.000	REF 14.2440 50.F.T.
(VEL031)	ARC 87-747 D453C B C M F V I	20.000	-10.000	-11.700	55.000	BREF 28.1004 50.F.T.
(VEL032)	ARC 87-747 D453C B C M F V I	10.000	-20.000	-11.700	55.000	XBREF 32.3010 50.F.T.
(VEL033)	ARC 87-747 D453C B C M F V I	20.000	-20.000	-11.700	55.000	YBREF 11.2500 50.F.T.
(VEL034)	ARC 87-747 D453C B C M F V I	20.000	-20.000	-11.700	55.000	ZBREF 11.2500 50.F.T.
						SCALE

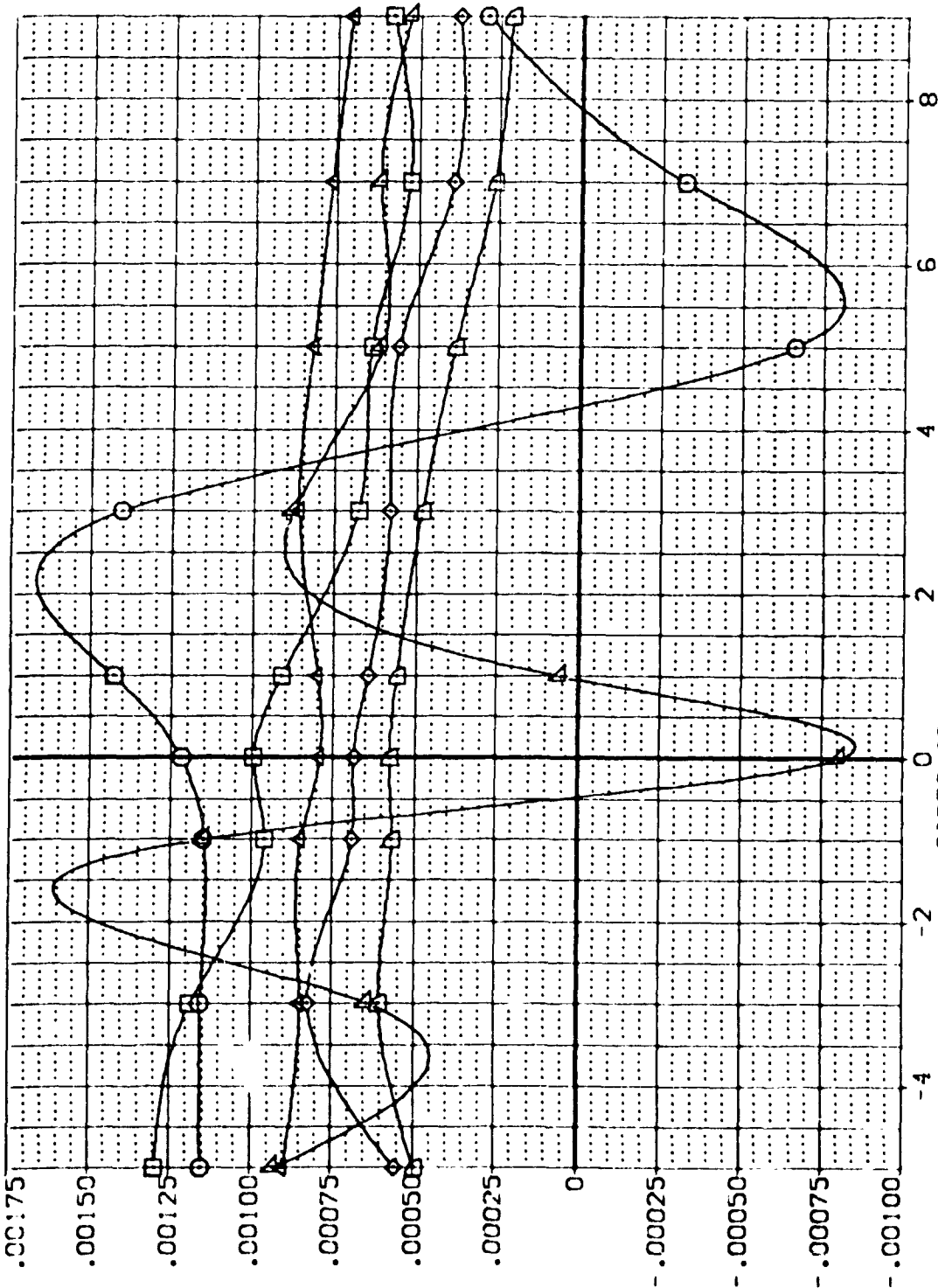
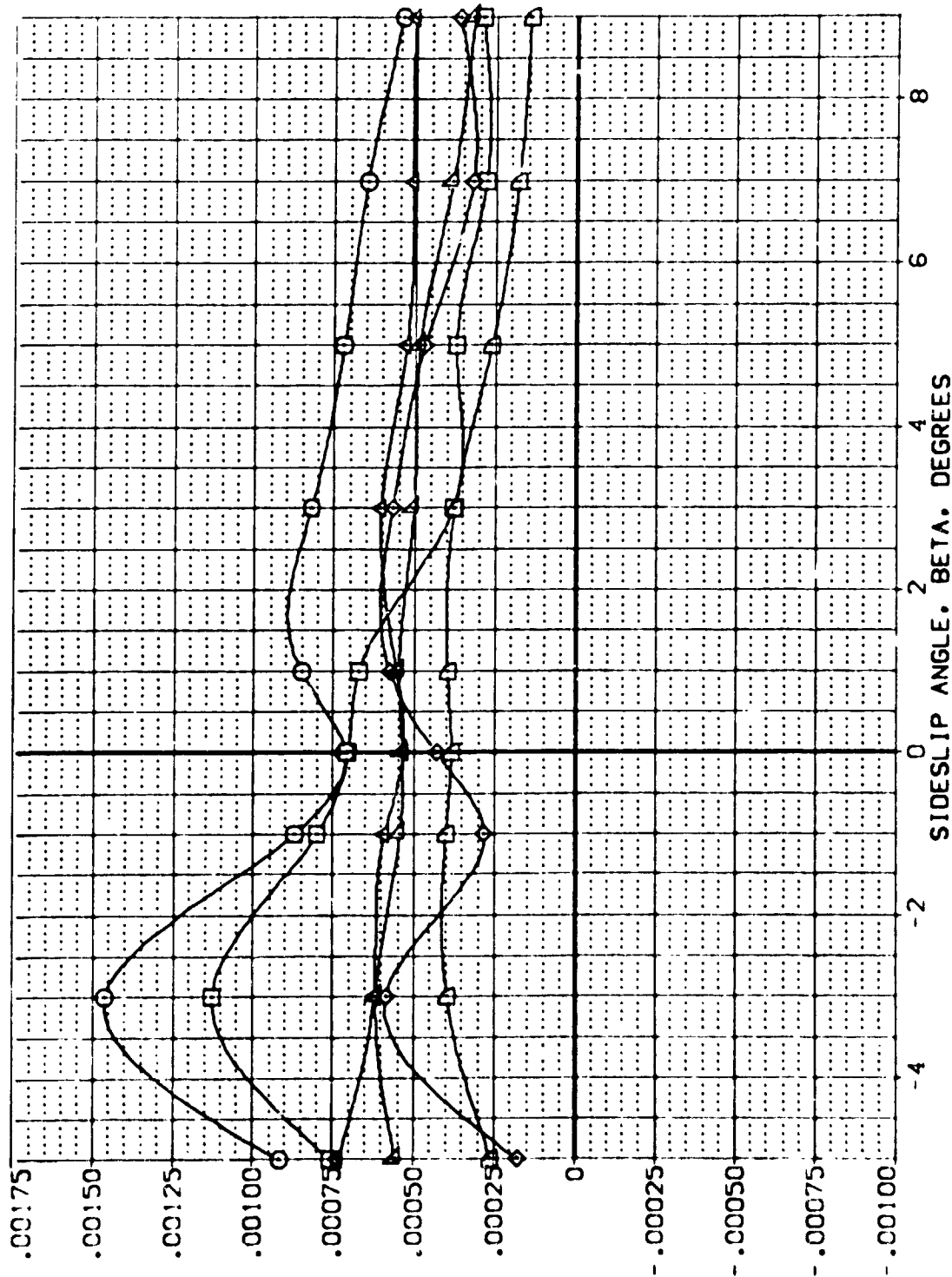


FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(A)MAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BD FLAP	SPOBRK	REFERENCE INFORMATION
[VE-029]	ARC 87-747 CAS3C B C M F V I	.000	-10.000	-11.700	55.000	SRES 2.4210 SQ.FT.
[VE-030]	ARC 87-747 CAS3C B C M F V I	10.000	-10.000	-11.700	55.000	LREF 14.2440
[VE-031]	ARC 87-747 CAS3C B C M F V I	20.000	-10.000	-11.700	55.000	EREF 28.1004
[VE-032]	ARC 87-747 CAS3C B C M F V I	.000	-20.000	-11.700	55.000	XRER 32.3010
[VE-033]	ARC 87-747 CAS3C B C M F V I	10.000	-20.000	-11.700	55.000	YMER 11.0000
[VE-034]	ARC 87-747 CAS3C B C M F V I	20.000	-20.000	-11.700	55.000	ZMER 11.2500
						SCALE .0300



SIDE FORCE DUE TO RUDDER, DCY/DR. PER DEGREE

FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(B)MAC+ = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOLAP	SPOBRK	REFERENCE INFORMATION
VE-029	ARC 87-747 CASIC B C H F VI	0.00	-10.000	-11.700	55.000	SREF 2.4210 SQ.FT.
VE-030	ARC 87-747 CASIC B C H F VI	10.000	-10.000	-11.700	55.000	REF 14.2440
VE-031	ARC 87-747 CASIC B C H F VI	20.000	-10.000	-11.700	55.000	BREF 28.1004
VE-032	ARC 87-747 CASIC B C H F VI	10.000	-20.000	-11.700	55.000	XREF 37.3010
VE-033	ARC 87-747 CASIC B C H F VI	20.000	-20.000	-11.700	55.000	YREF 11.2300
VE-034	ARC 87-747 CASIC B C H F VI	20.000	-20.000	-11.700	55.000	SCALE 0.000

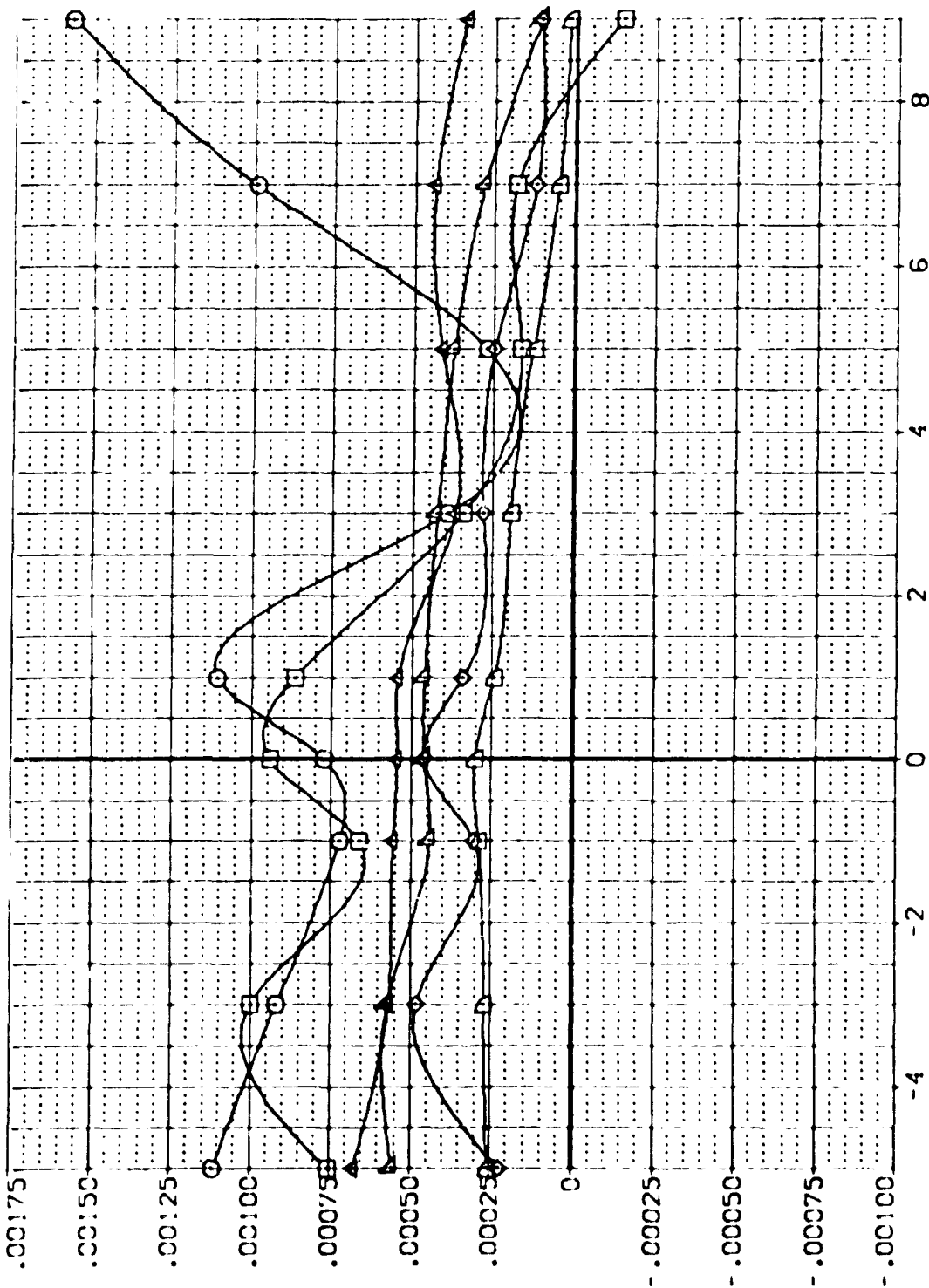
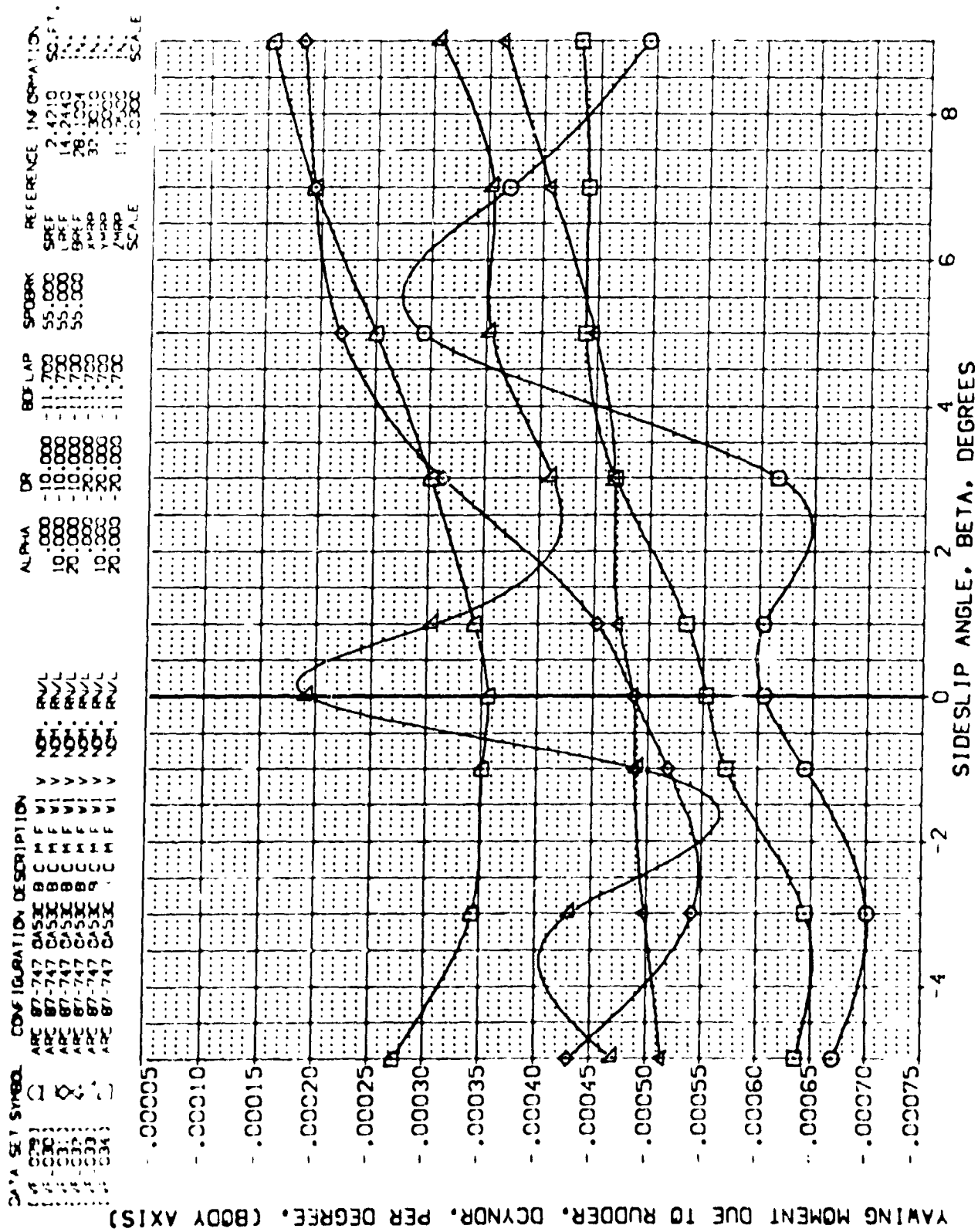


FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(C)MAC = 3.50



CAAC = 2.50

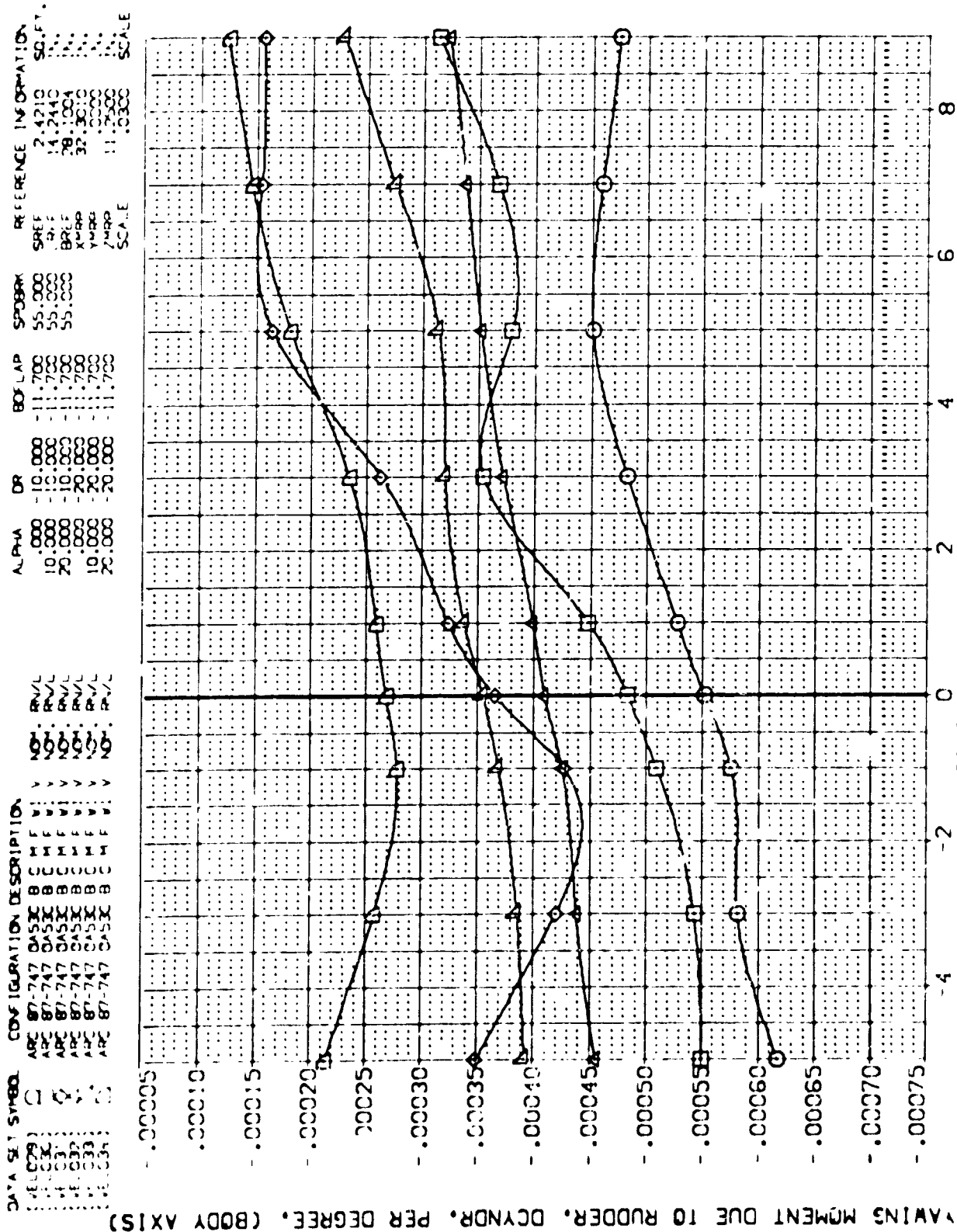


FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(3)YAC 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOFLAP	SPDRM	REFERENCE INFORMATION
(VEL029)	ARC 87-747 DASSC B C M F VI V	0.000	-10.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(VEL030)	ARC 87-747 DASSC B C M F VI V	10.000	-10.000	-11.700	55.000	LREF 14.2440
(VEL031)	ARC 87-747 DASSC B C M F VI V	20.000	-10.000	-11.700	55.000	BREF 28.1004
(VEL032)	ARC 87-747 DASSC B C M F VI V	0.000	-20.000	-11.700	55.000	XMRD 1.0000
(VEL033)	ARC 87-747 DASSC B C M F VI V	10.000	-20.000	-11.700	55.000	YMRD 11.2500
(VEL034)	ARC 87-747 DASSC B C M F VI V	20.000	-20.000	-11.700	55.000	ZMRD 1.0300 SCALE

YAWING MOMENT DUE TO RUDDER, DCYNDR, PER DEGREE, (BODY AXIS)

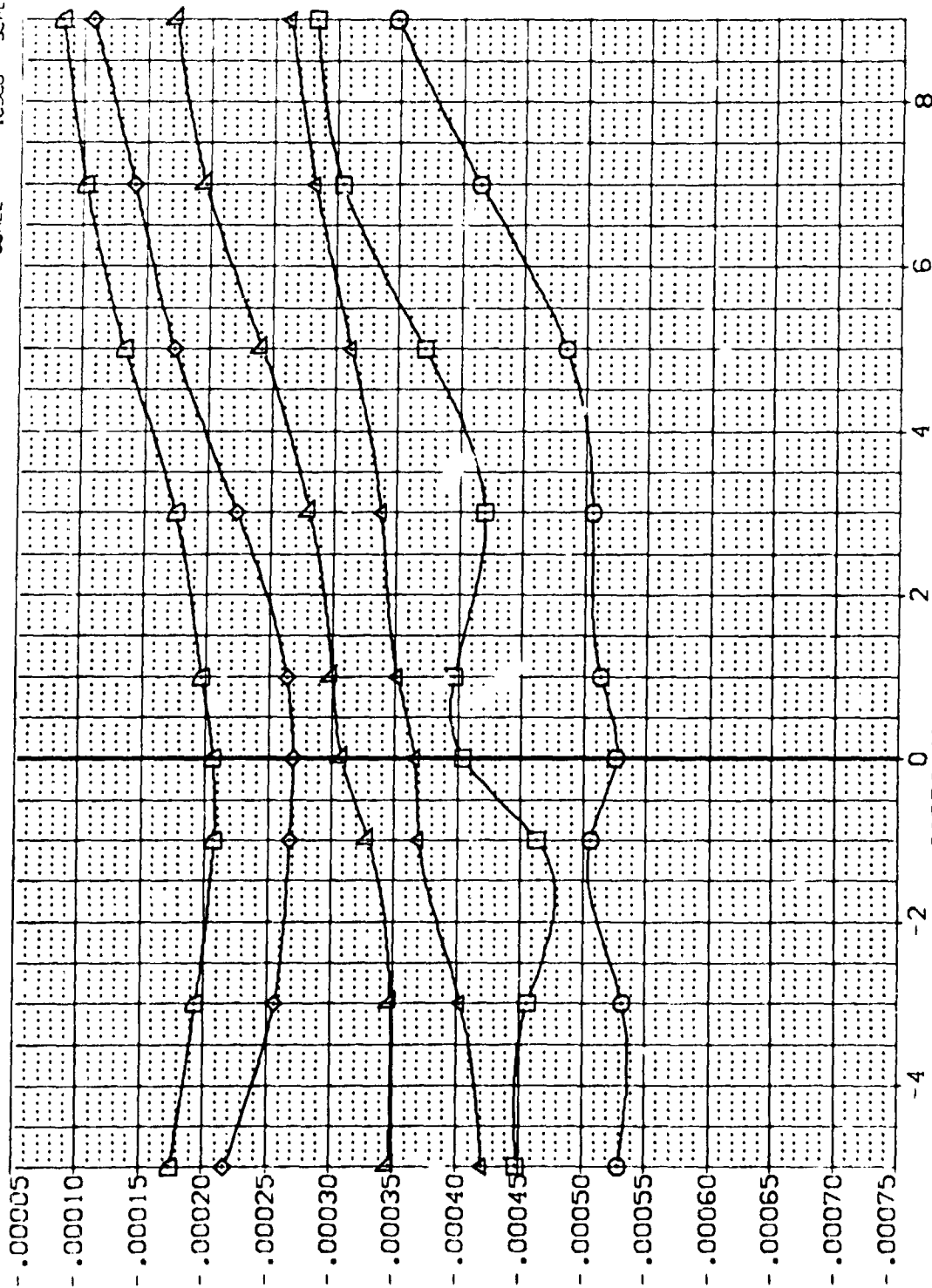


FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(C)MACH = 3.50

ROLLING MOMENT DUE TO RUDDER, DCBLDR, PER DEGREE, (BODY AXIS)

DATA SET SYMB.	CONFIGURATION DESCRIPTION	NON: R/V/L	ALPHA	DR	BOFLAP	SPOBRK	REFERENCE INFORMATION
[VEL003]	ARC 87-747 BASSC B C M F V1	NON: R/V/L	0.000	-10.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[VEL003]	ARC 87-747 BASSC B C M F V1	NON: R/V/L	10.000	-10.000	-11.700	55.000	LREF 14.2440 IN.
[VEL003]	ARC 87-747 BASSC B C M F V1	NON: R/V/L	20.000	-10.000	-11.700	55.000	BREF 28.1004 IN.
[VEL003]	ARC 87-747 BASSC B C M F V1	NON: R/V/L	10.000	-20.000	-11.700	55.000	XREF 32.3010 IN.
[VEL003]	ARC 87-747 BASSC B C M F V1	NON: R/V/L	20.000	-20.000	-11.700	55.000	YREF 11.0000 IN.
[VEL003]	ARC 87-747 BASSC B C M F V1	NON: R/V/L	20.000	-20.000	-11.700	55.000	ZREF 11.2500 IN.
[VEL003]	ARC 87-747 BASSC B C M F V1	NON: R/V/L	20.000	-20.000	-11.700	55.000	SCALE .0300

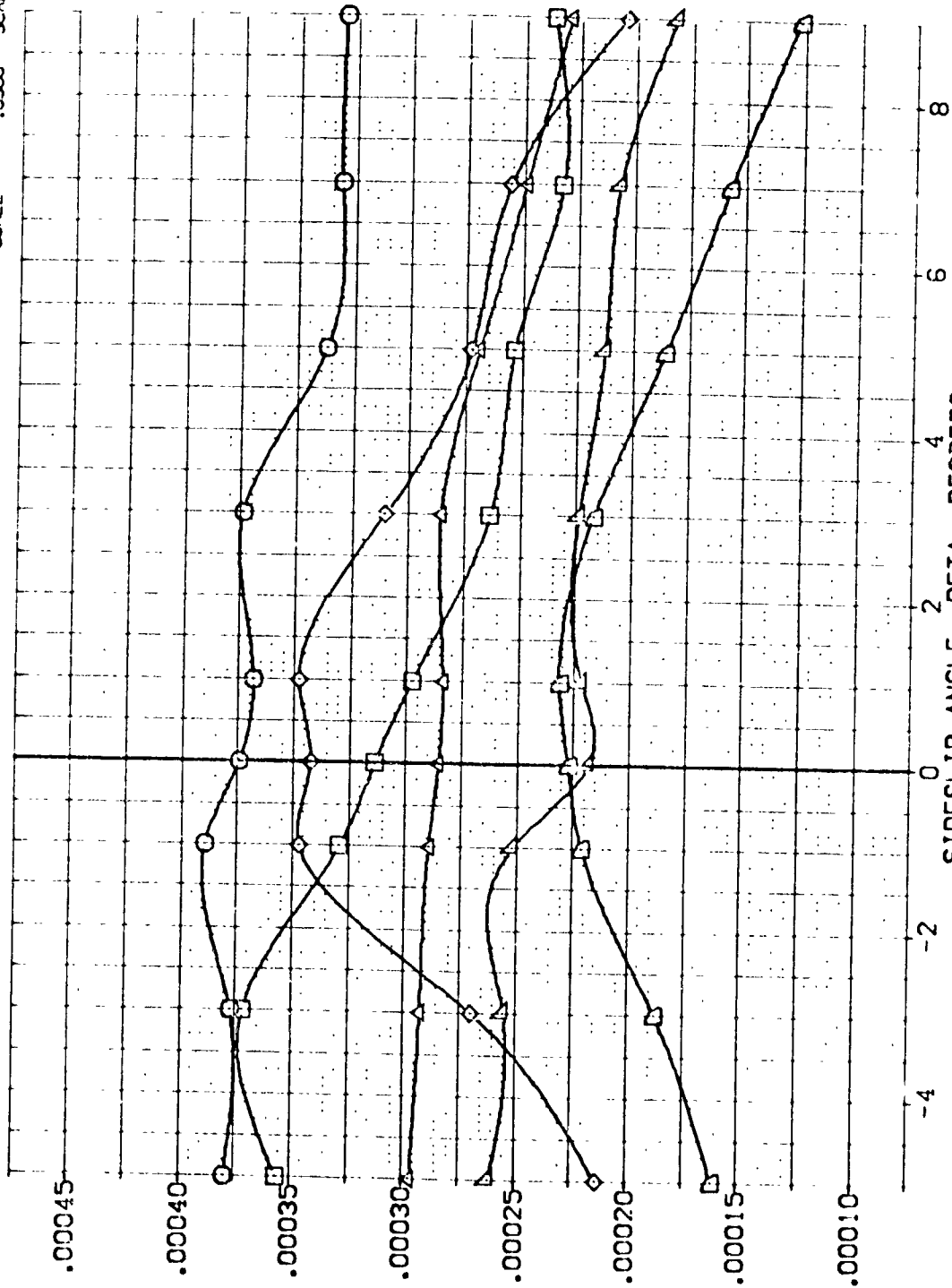


FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(MACH = 2.50)



ROLLING MOMENT DUE TO RUDDER, DCBLDR, PER DEGREE, (BODY AXIS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON: RV/L	ALPHA	DR	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VEL029)	ARC 87-747 CAS3C B C H F VI	NON: RV/L	.000	-10.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(VEL030)	ARC 87-747 CAS3C B C H F VI	NON: RV/L	10.000	-10.000	-11.700	55.000	LREF 14.2440 IN.
(VEL031)	ARC 87-747 CAS3C B C H F VI	NON: RV/L	20.000	-10.000	-11.700	55.000	BREF 28.1004 IN.
(VEL032)	ARC 87-747 CAS3C B C H F VI	NON: RV/L	10.000	-20.000	-11.700	55.000	XMRP 32.3010 IN.
(VEL033)	ARC 87-747 CAS3C B C H F VI	NON: RV/L	20.000	-20.000	-11.700	55.000	YMRP 11.2500 IN.
(VEL034)	ARC 87-747 CAS3C B C H F VI	NON: RV/L	20.000	-20.000	-11.700	55.000	ZMRP 11.2500 IN.
							SCALE .0300

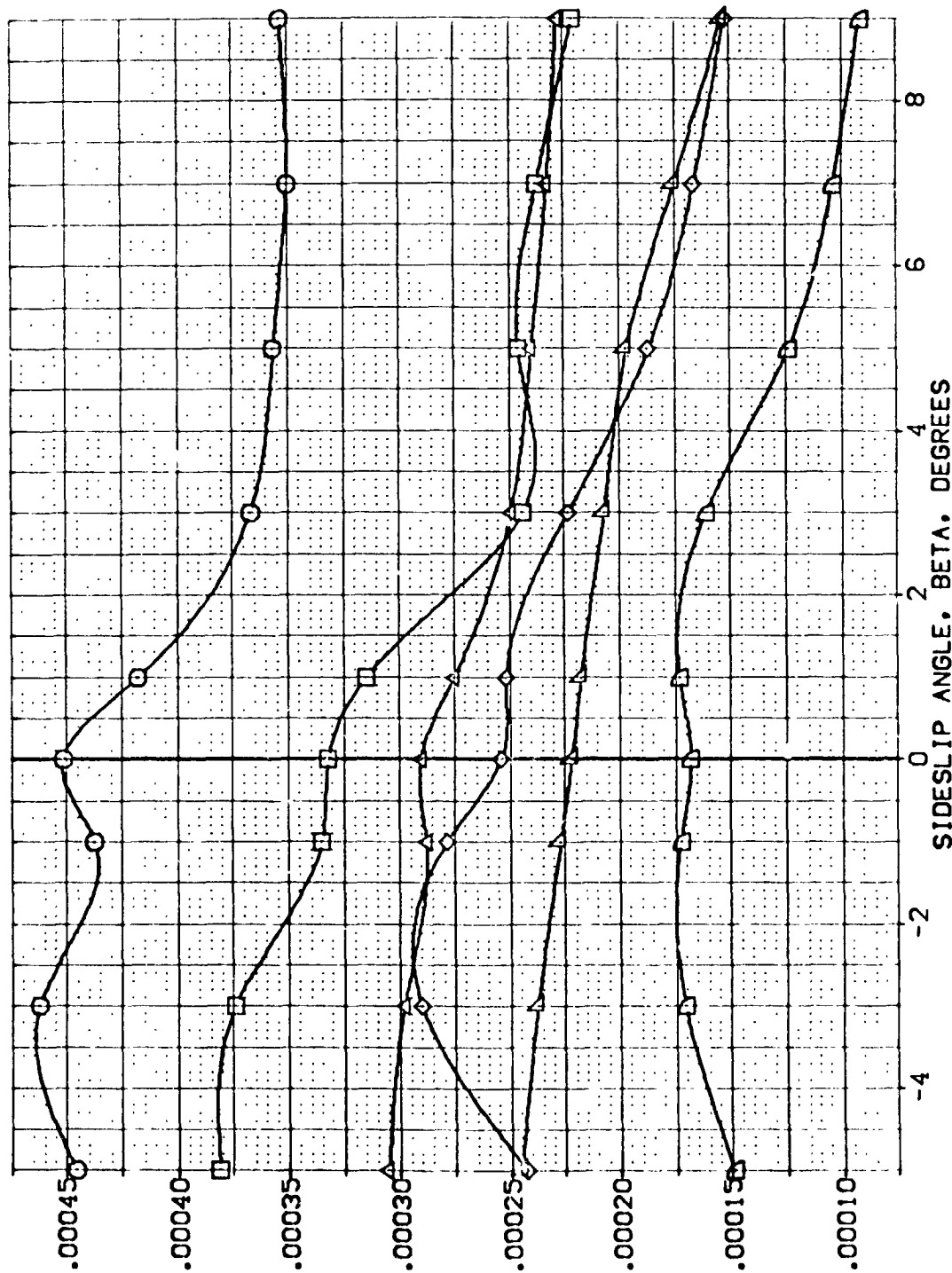


FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BDLAP	SPOBRK	REFERENCE INFORMATION
[VEL029]	ARC 87-747 D453C B C M F V I V	0.000	-10.000	-11.700	55.000	SREF 2.4210 50.000
[VEL030]	ARC 87-747 D453C B C M F V I V	10.000	-10.000	-11.700	55.000	LREF 14.2440 12.000
[VEL031]	ARC 87-747 D453C B C M F V I V	20.000	-10.000	-11.700	55.000	BREF 28.1004 12.000
[VEL032]	ARC 87-747 D453C B C M F V I V	10.000	-20.000	-11.700	55.000	YREF 32.3010 12.000
[VEL033]	ARC 87-747 D453C B C M F V I V	10.000	-20.000	-11.700	55.000	ZREF 11.2500 12.000
[VEL034]	ARC 87-747 D453C B C M F V I V	20.000	-20.000	-11.700	55.000	SCALE 11.0300 SCALE

ROLLING MOMENT DUE TO RUDDER, DCBLDR, PER DEGREE, (BODY AXIS)

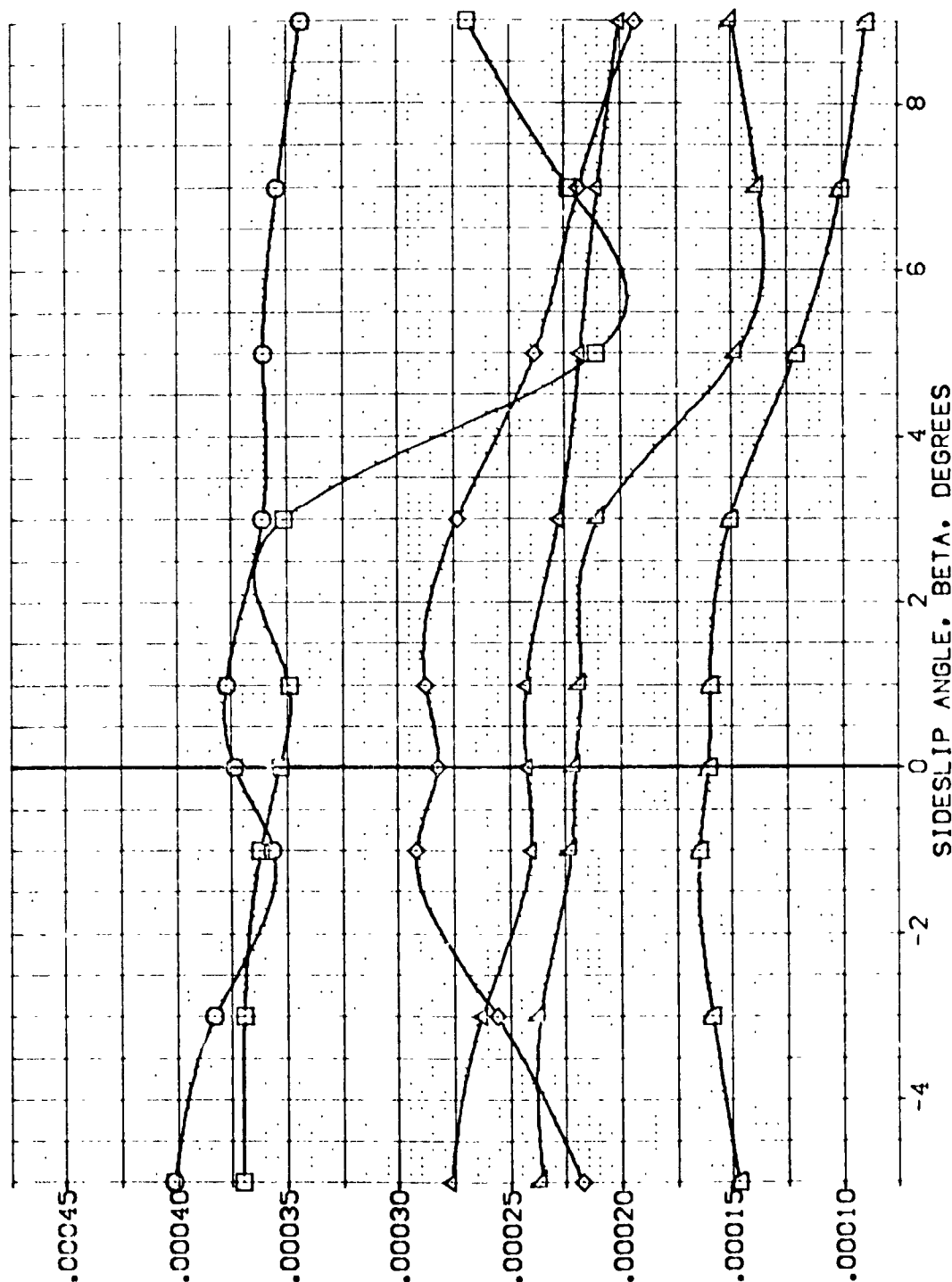


FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(C)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA	DR	BDF LAP	SPOBRK	REFERENCE INFORMATION
VE-029	□	ARC 87-747	B C M F V	.000	-10.000	-11.700	55.000	SREF 2.4210 SQ.FT.
VE-030	○	ARC 87-747	B C M F V	10.000	-10.000	-11.700	55.000	LREF 14.2440 IN.
VE-031	△	ARC 87-747	B C M F V	20.000	-10.000	-11.700	55.000	BREF 28.1004 IN.
VE-032	×	ARC 87-747	B C M F V	10.000	-20.000	-11.700		AREF 32.3010 IN.
VE-033	◇	ARC 87-747	B C M F V	10.000	-20.000	-11.700		YREF 11.0000 IN.
VE-034	■	ARC 87-747	B C M F V	20.000	-20.000	-11.700		ZREF 11.2500 IN.
								SCALE .0300

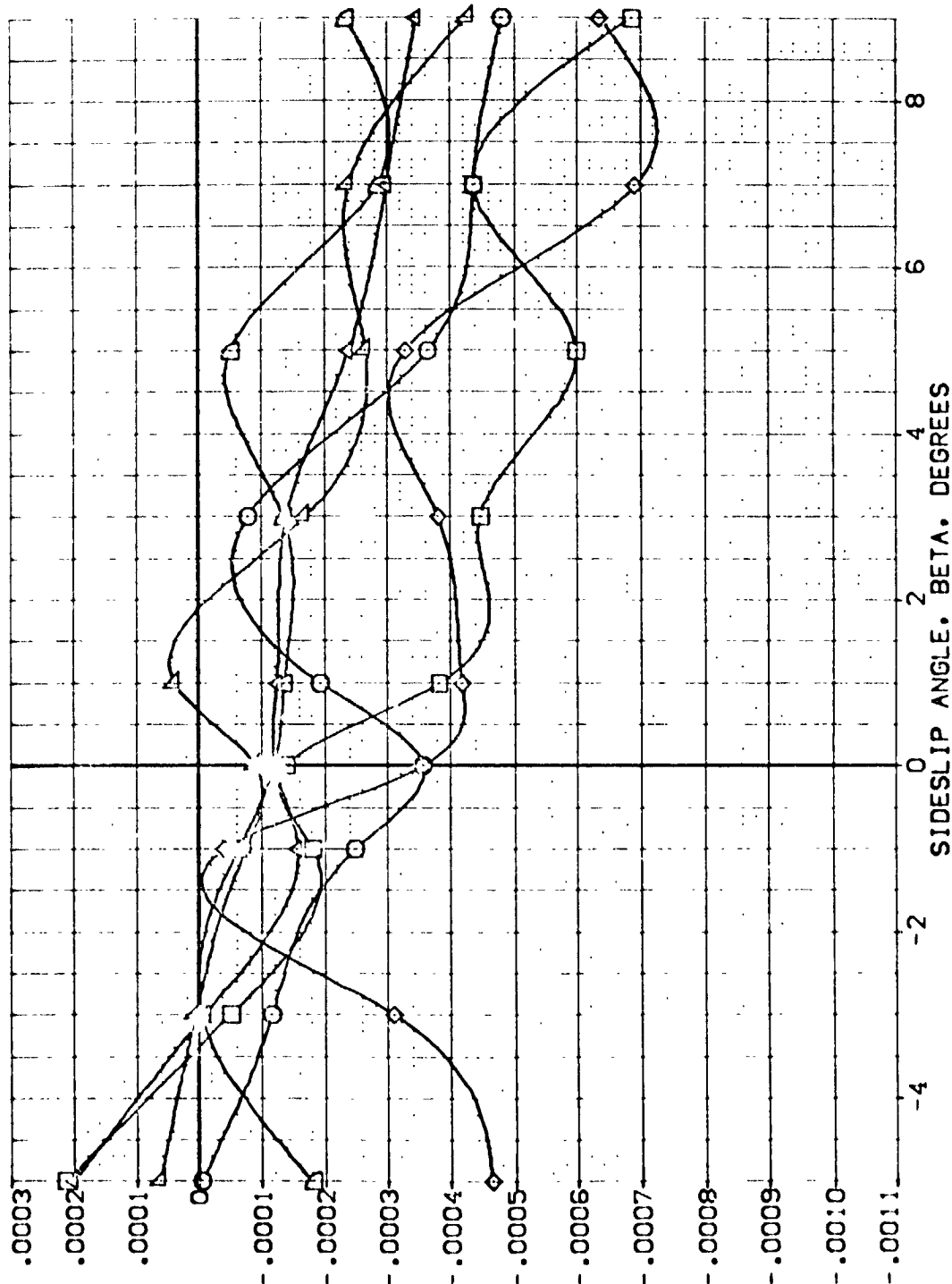


FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(A) MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VEL029)	ARC 87-747 OAS3C B C M F V1	0.000	-10.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(VEL030)	ARC 87-747 OAS3C B C M F V1	10.000	-10.000	-11.700	55.000	LREF 14.2440
(VEL031)	ARC 87-747 OAS3C B C M F V1	20.000	-10.000	-11.700	55.000	BREF 28.1004
(VEL032)	ARC 87-747 OAS3C B C M F V1	0.000	-20.000	-11.700	55.000	XMRP 32.3010
(VEL033)	ARC 87-747 OAS3C B C M F V1	10.000	-20.000	-11.700	55.000	YMRP 11.2600
(VEL034)	ARC 87-747 OAS3C B C M F V1	20.000	-20.000	-11.700	55.000	ZMRP 11.2600
						SCALE .0300

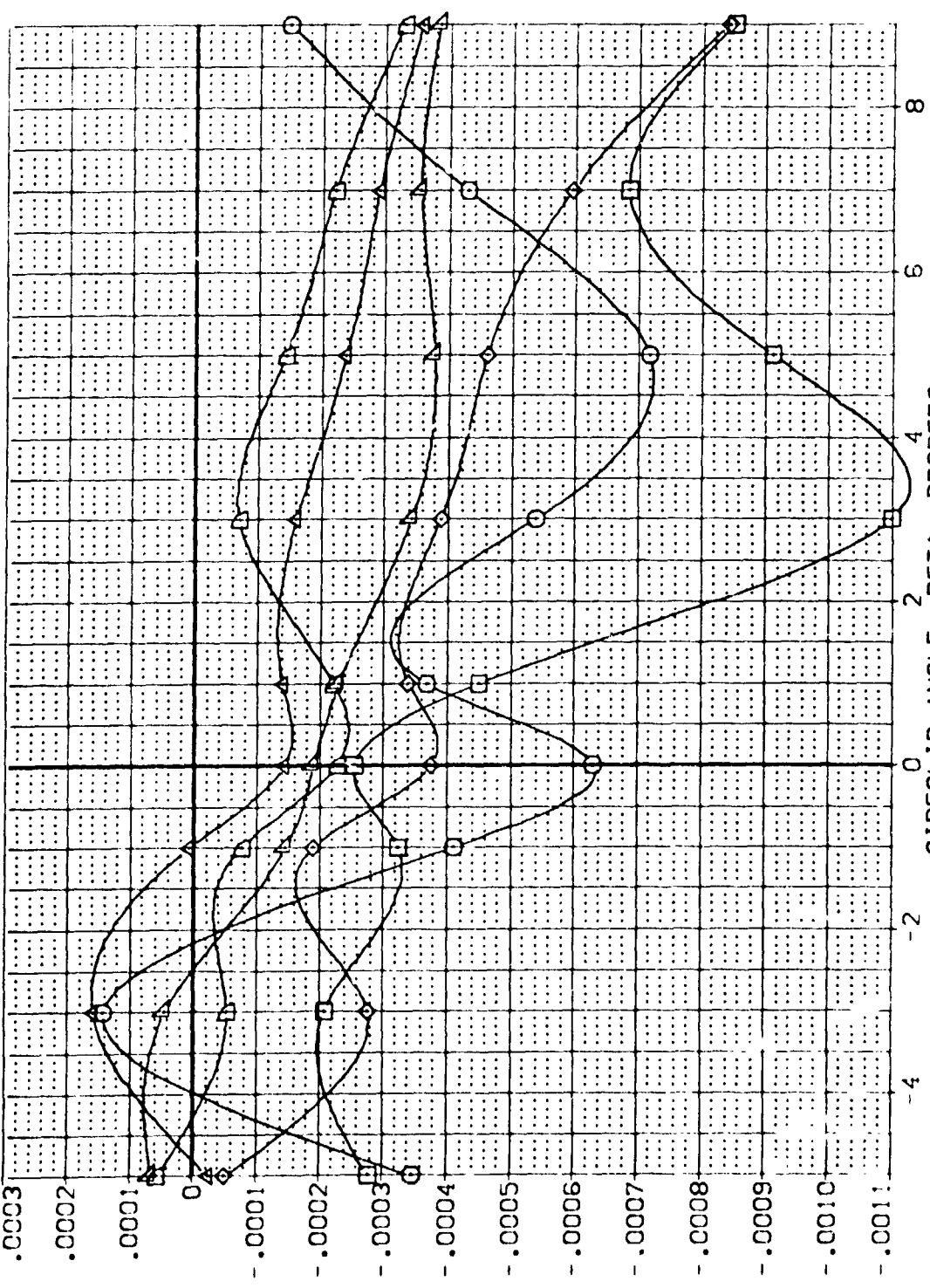


FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(3) V<sub>1</sub> = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOG LUP	SPD BRN	REFERENCE INFORMATION
079	ARC 87-747 CAS3C B C H F V	0.000	-10.000	-11.700	55.000	SPDF 2.4210
080	ARC 87-747 CAS3C B C H F V	10.000	-10.000	-11.700	55.000	SPDF 14.2440
081	ARC 87-747 CAS3C B C H F V	20.000	-10.000	-11.700	55.000	SPDF 28.1001
082	ARC 87-747 CAS3C B C H F V	10.000	-20.000	-11.700	55.000	SPDF 32.0000
083	ARC 87-747 CAS3C B C H F V	20.000	-20.000	-11.700	55.000	SPDF 11.7000
084	ARC 87-747 CAS3C B C H F V	20.000	-20.000	-11.700	55.000	SPDF 11.7000

PITCHING MOMENT COEFF. DERIV. WRT RUDDER DEFL., DCLMR, PER DEG

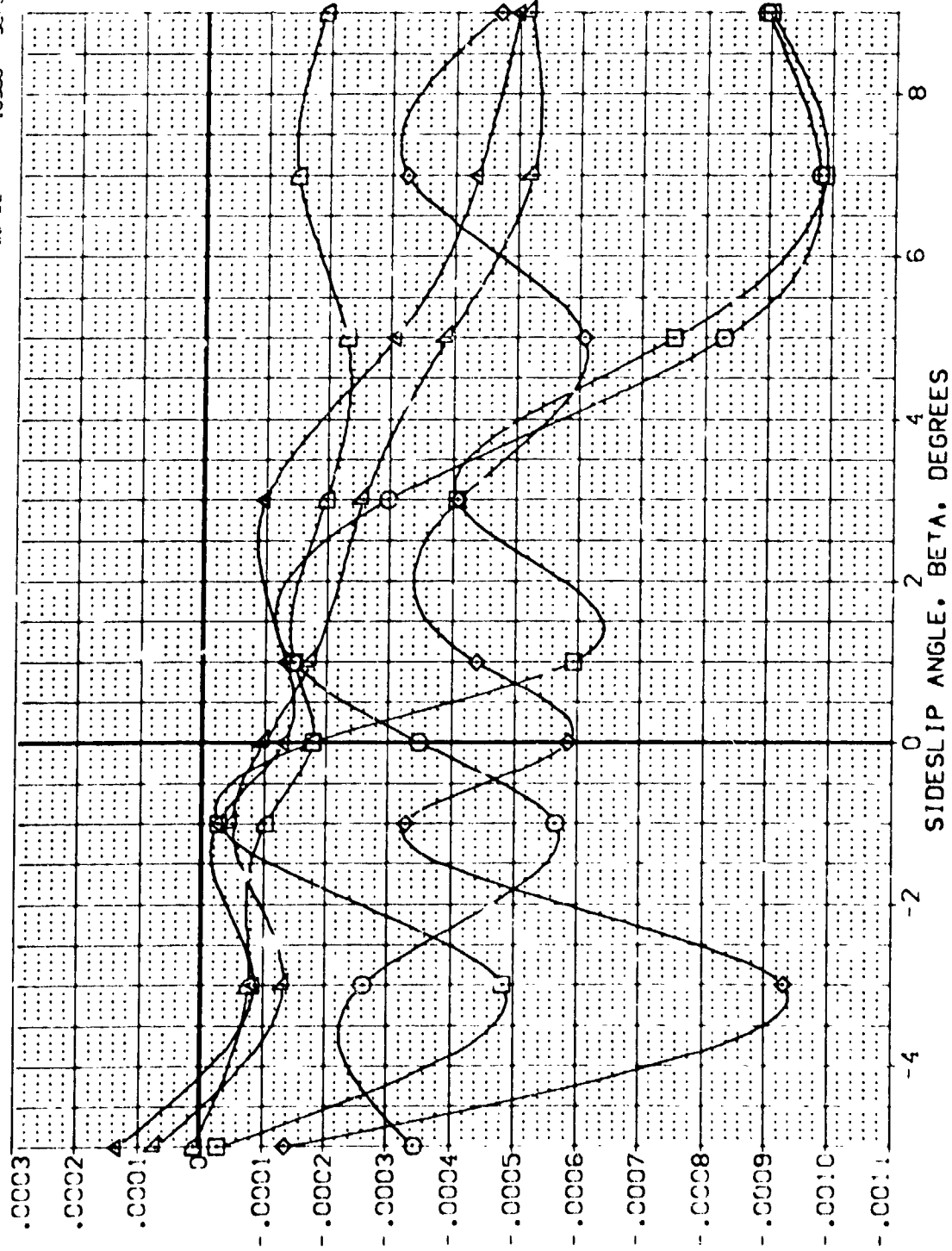


FIG. 23 RUDDER DERIVATIVES, SPEEDBRAKE 55 DEGREES

(C)MAC = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    DR    BOFLAP    SPEEDBRAK    REFERENCE INFORMATION

(JELC46)	ARC 87-747 D453C B C M F V1 V	0.000	-10.000	-11.700	85.000	SREF 2.4210 SQ.FT.
(JELC47)	ARC 87-747 D453C B C M F V1 V	10.000	-10.000	-11.700	85.000	LREF 14.2440 IN.
(JELC48)	ARC 87-747 D453C B C M F V1 V	20.000	-10.000	-11.700	85.000	BREF 28.1004 IN.
						YREF 32.3010 IN.
						ZREF 11.2500 IN.
						SCALE .0300

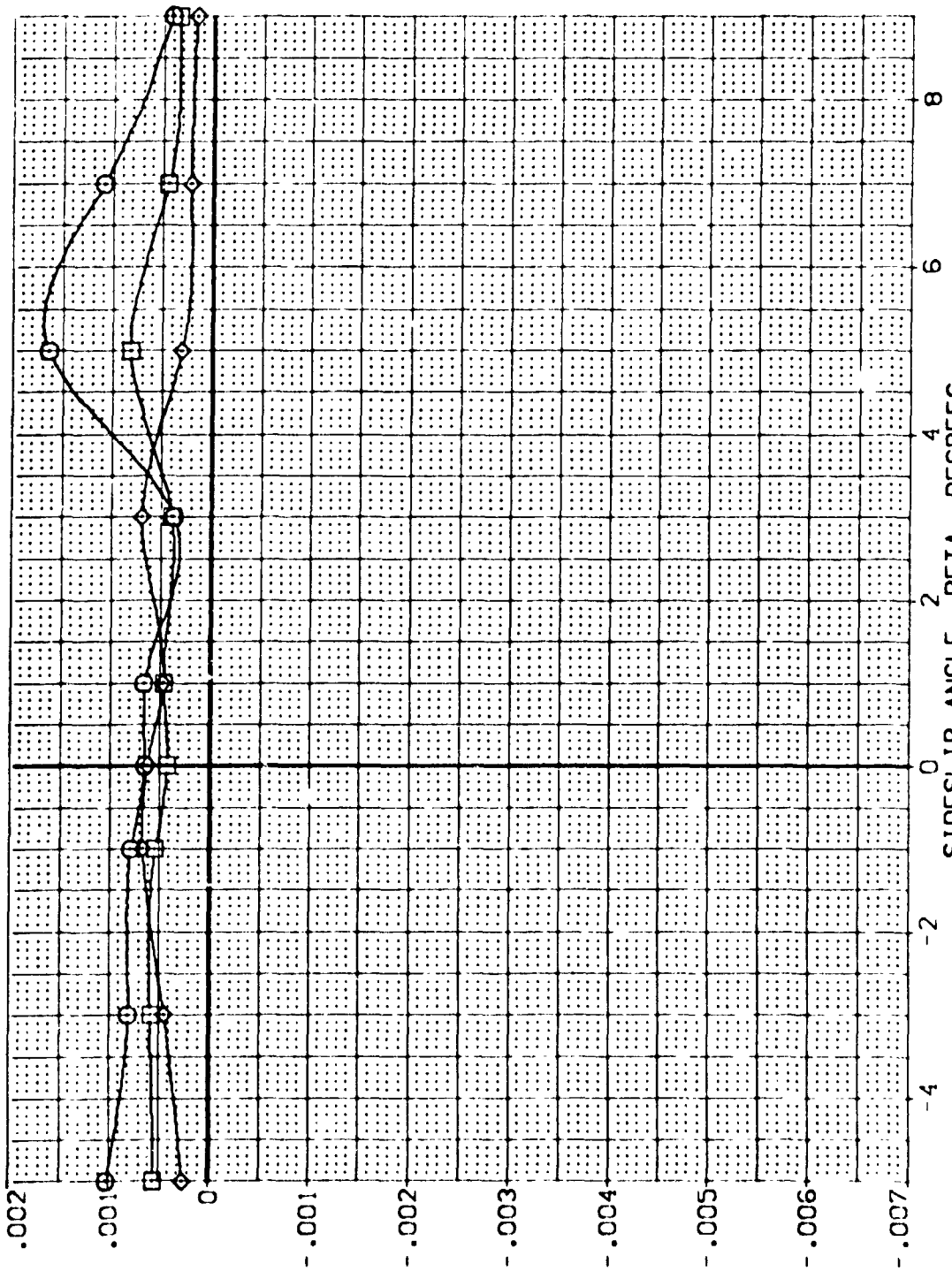


FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

(AJMAC) 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VELO46)	ARC 87-747 OAS3C B C M F V1 V	0.000	-10.000	-11.700	85.000	SREF 2.4210 SQ.FT.
(VELO47)	ARC 87-747 OAS3C B C M F V1 V	10.000	-10.000	-11.700	85.000	LREF 14.2440 IN.
(VELO48)	ARC 87-747 OAS3C B C M F V1 V	20.000	-10.000	-11.700	85.000	BREF 28.1004 IN.
						XMRP 37.3010 IN.
						YMRP .0000 IN.
						ZMRP 11.2500 IN.
						SCALE .0300 IN.

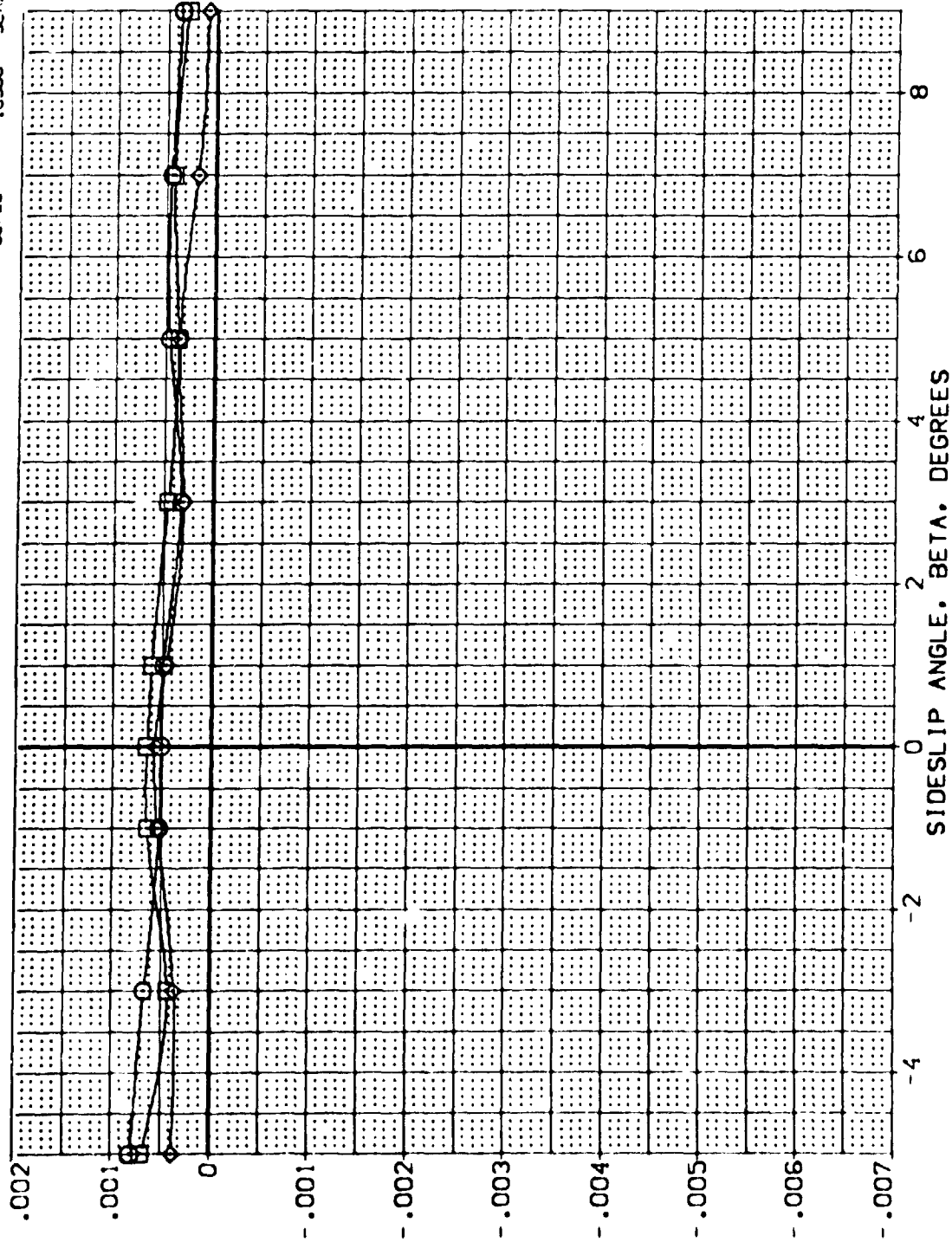
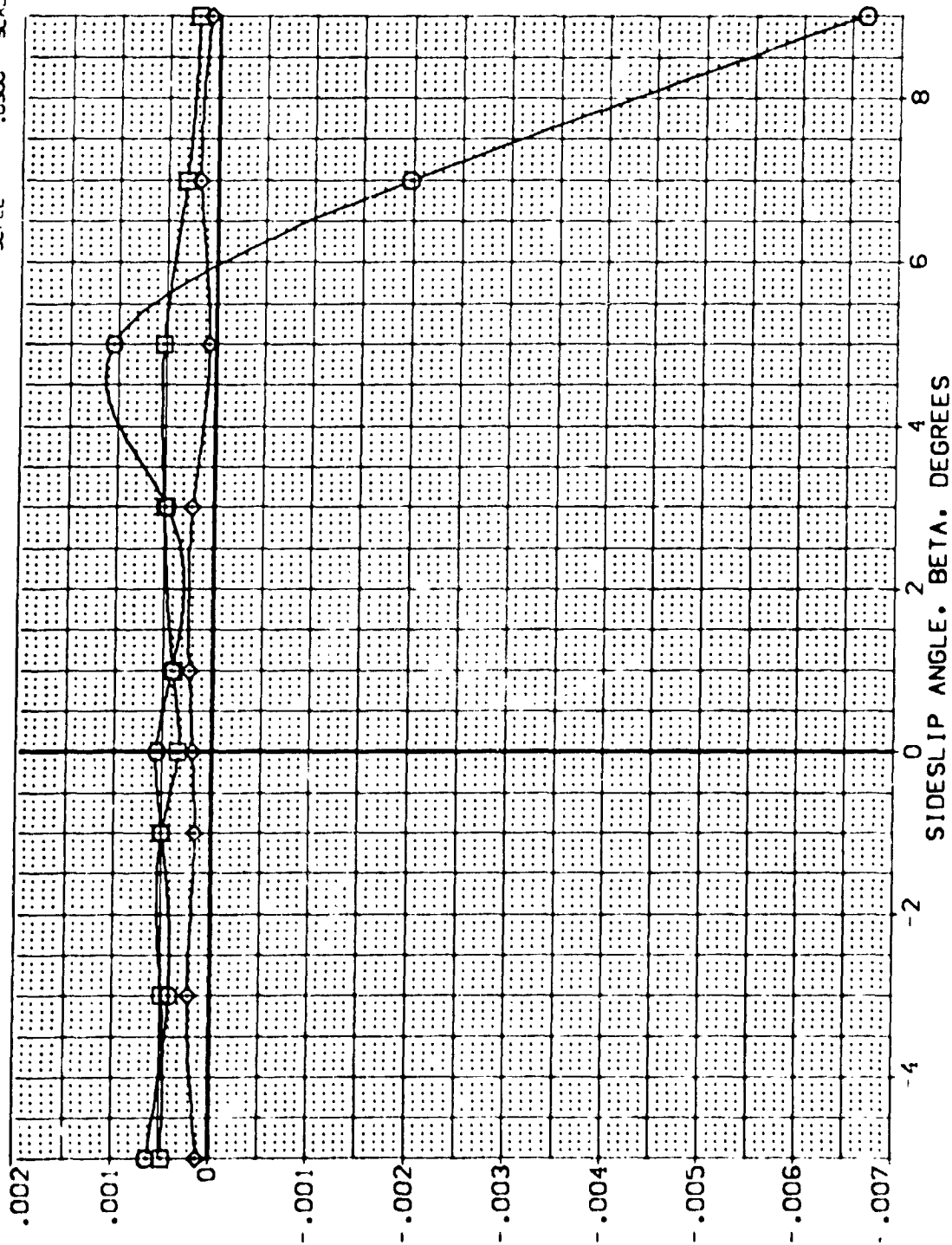


FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PHI	DR	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VELO46)	ARC 87-747 QAS3C B C M F V	000	-10.000	-11.700	85.000	SREF 7.4210 SQ.FT.
(VELO47)	ARC 87-747 QAS3C B C M F V	30	-10.000	-11.700	85.000	LREF 14.2440 IN.
(VELO48)	ARC 87-747 QAS3C B C M F V	20	-10.000	-11.700	85.000	BREF 28.1004 IN.
						XMREF 32.3010 IN.
						VMREF 11.0000 IN.
						ZMREF 11.2500 IN.
						SCALE .0300



SIDE FORCE DUE TO RUDDER, PCY/DR, PER DEGREE

FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

(C)MAC = 3.50



YAWING MOMENT DUE TO RUDDER, DCYNDR, PER DEGREE, (BODY AXIS)

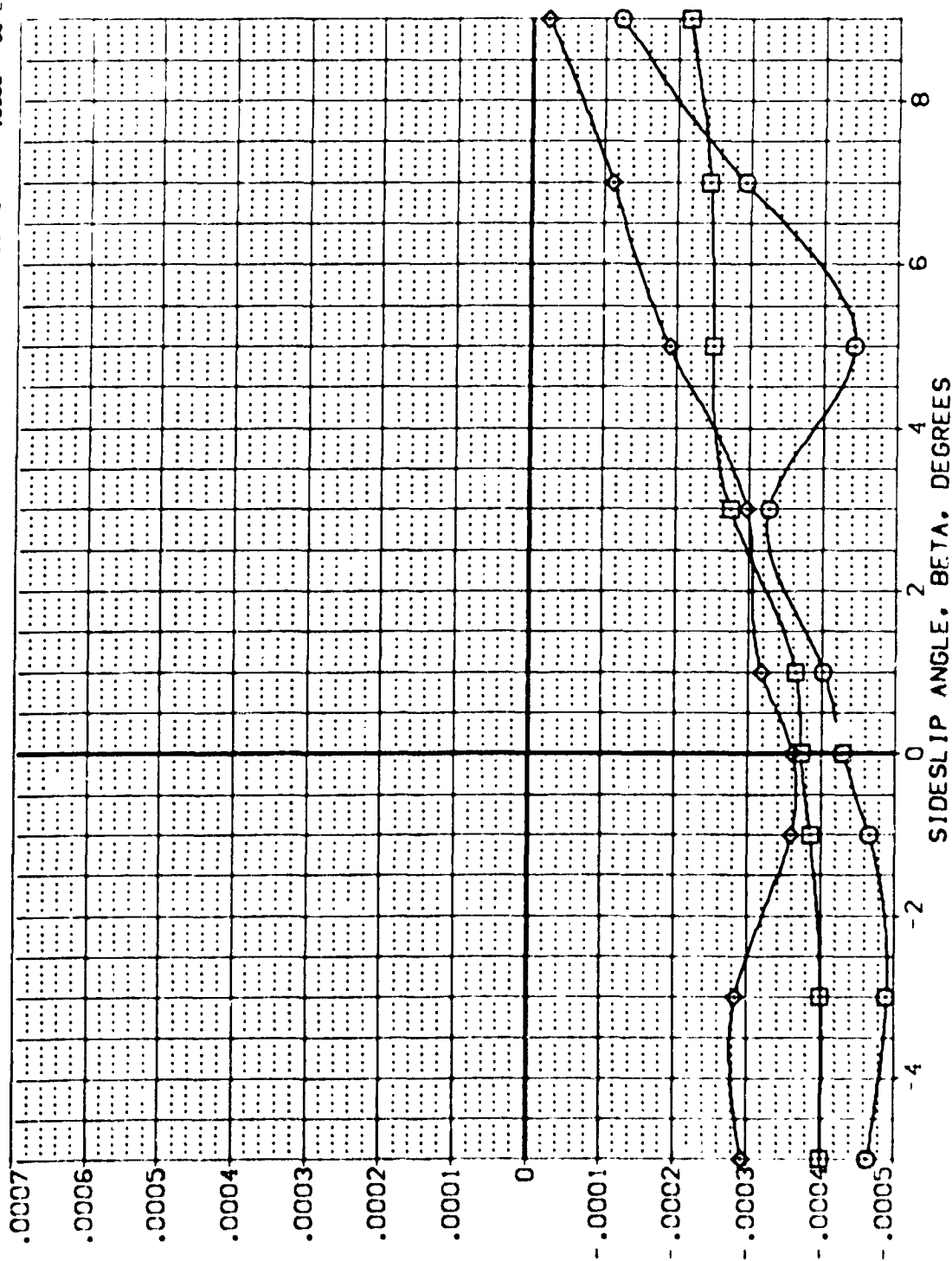
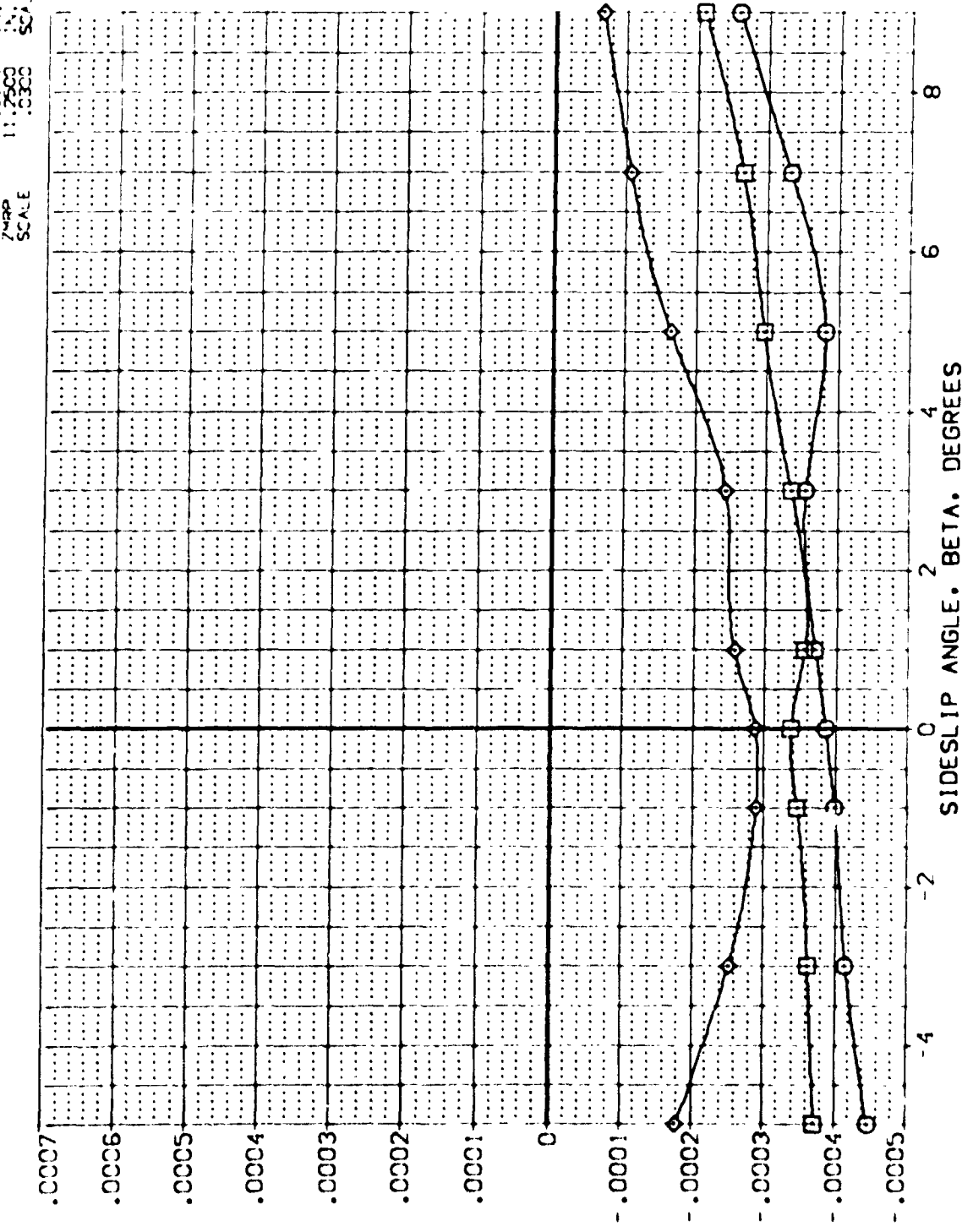


FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

$[A]_{AC} = 2.50$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOF LAP	SPEEDK	REFERENCE INFORMATION
(46-046)	ARC 87-747 DASHC B C M F VI V	0.000	-10.000	-11.700	85.000	SREF 2.4710 SC.FT.
(47-047)	ARC 87-747 DASHC B C M F VI V	10.000	-10.000	-11.700	85.000	LREF 14.2440
(48-048)	ARC 87-747 DASHC B C M F VI V	20.000	-10.000	-11.700	85.000	BREF 28.1000
						YREF 32.3010
						ZREF 11.2900
						SCALE 10000



YAWING MOMENT DUE TO RUDDER, DCYNDR, PER DEGREE, (BODY AXIS)

FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

(3) VAS... 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOF LAP	SPEEDBRK	REFERENCE INFORMATION
ARC 87-747	BASIC B C M F V	0.000	-10.000	-11.700	85.000	SREF 2.4210 SQ. FT.
ARC 87-747	BASIC B C M F V	10.000	-10.000	-11.700	85.000	UREF 14.2440
ARC 87-747	BASIC B C M F V	20.000	-10.000	-11.700	85.000	UREF 28.1004
						UREF 32.3010
						YREF 0.0000
						ZREF 11.7000
						SCALE 1.0300

YAWING MOMENT DUE TO RUDDER, DCYNR, PER DEGREE, (BODY AXIS)

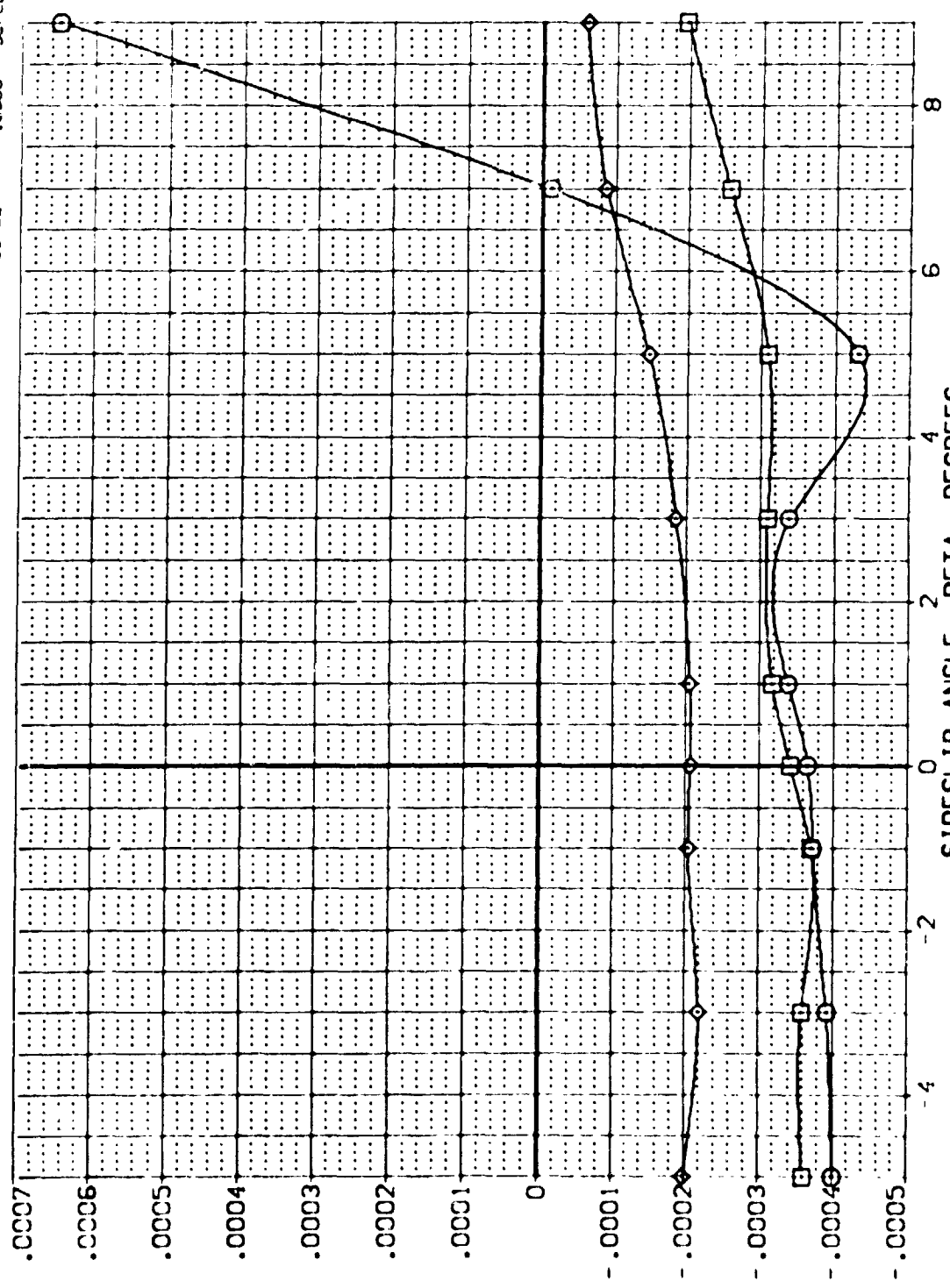


FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

(C) VAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOFLAP	SPEEDBRK	REFERENCE INFORMATION
(VE-046)	ARC 87-747 CASE B C M F V	0.000	-10.000	-11.700	85.000	SRFF 2.4210 50. FT.
(VE-047)	ARC 87-747 CASE B C M F V	10.000	-10.000	-11.700	85.000	LRFF 14.2440
(VE-048)	ARC 87-747 CASE B C M F V	20.000	-10.000	-11.700	85.000	BRFF 28.1000
						YMRP 37.3010
						ZMRP 11.2500
						SCALE 0.0000
						SCALE 0.0000

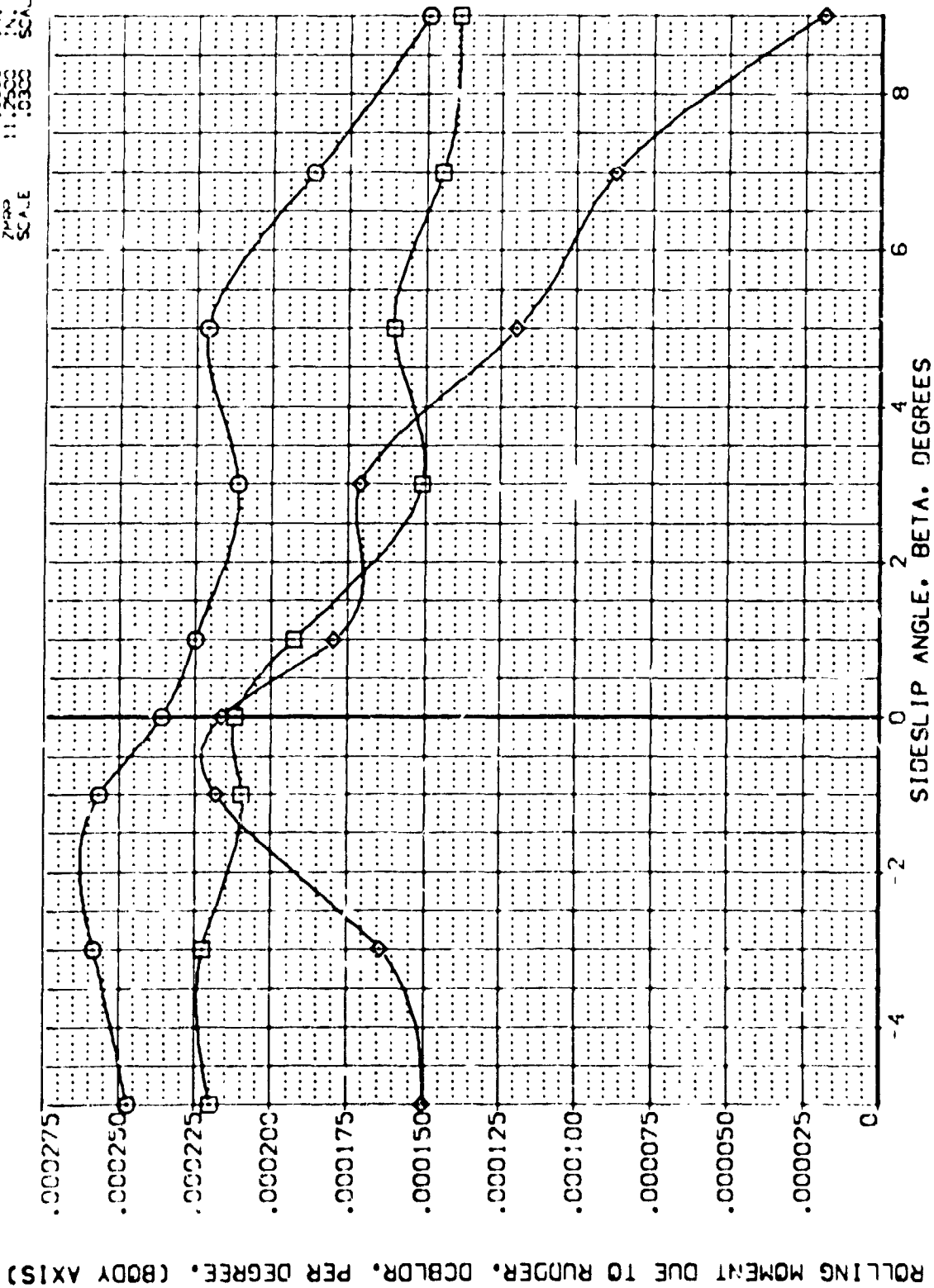


FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

(A)YAC 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

Symbol	Configuration	Description	Alpha	DR	BOFLAP	SPOBRK	Reference Information
(VLOC46)	ARC 87-747	0A53C B C M F V1 V	0.000	-10.000	-11.700	85.000	SREF 2.4210
(VLOC47)	ARC 87-747	0A53C B C M F V1 V	10.000	-10.000	-11.700	85.000	SREF 14.2440
(VLOC48)	ARC 87-747	0A53C B C M F V1 V	20.000	-10.000	-11.700	85.000	SREF 28.0004
							XMRP 32.3010
							YMRP .0000
							ZMRP 11.7500
							SCALE .0300

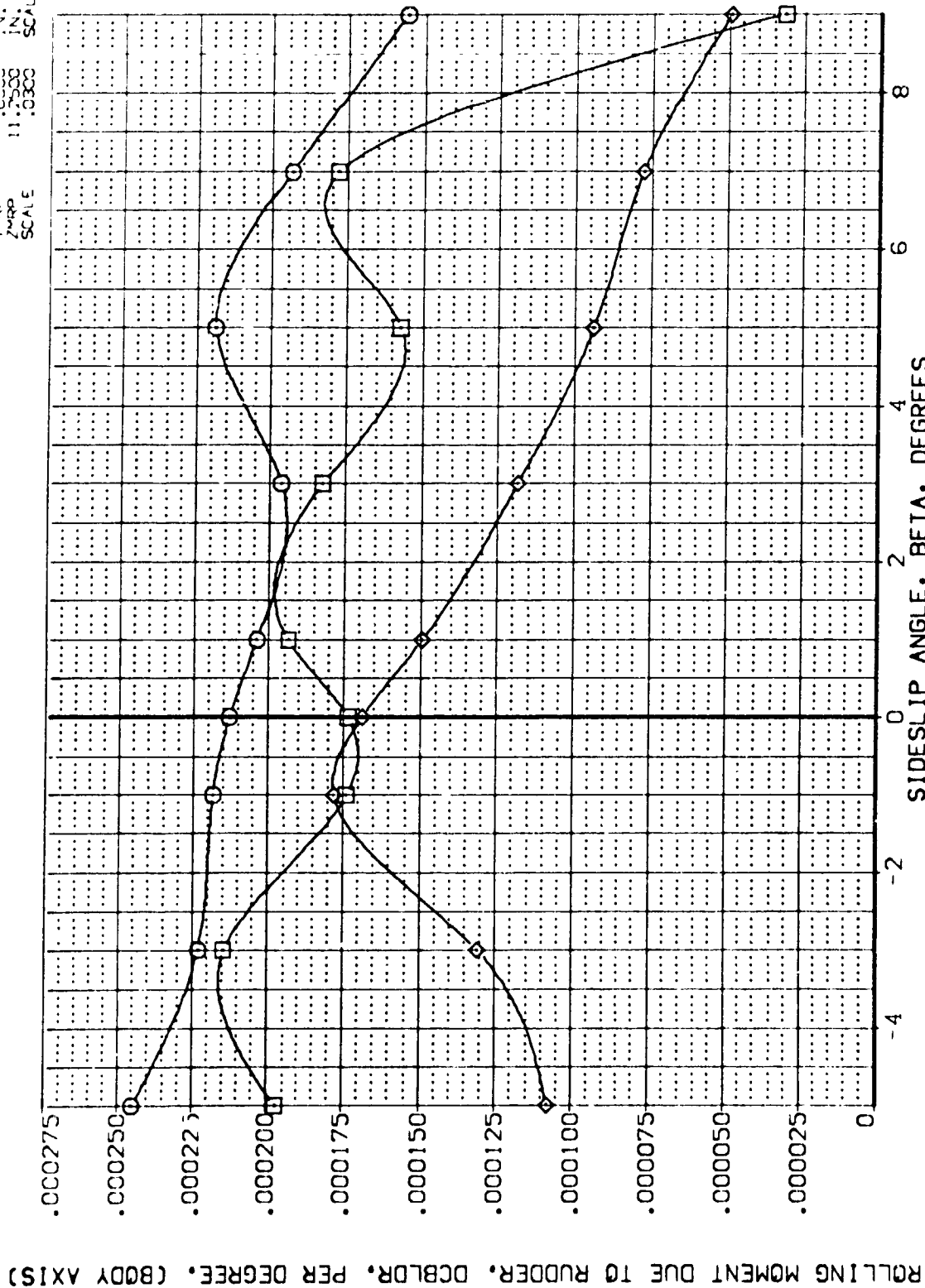


FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOF LAP	SPDBRY	REFERENCE INFORMATION
016	ARC 87-747 0453C B C M F V	0.000	-10.000	-11.700	85.000	SPEI 2.4210 SQ.FT.
017	ARC 87-747 0453C B C M F V	10.000	-10.000	-11.700	85.000	BOF 14.2440
018	ARC 87-747 0453C B C M F V	20.000	-10.000	-11.700	85.000	BOF 28.1000
						YMDP 30.0000
						YMDP 11.2500
						SCALE 10300

ROLLING MOMENT DUE TO RUDDER, DCBLDR, PER DEGREE, (800Y AXIS)

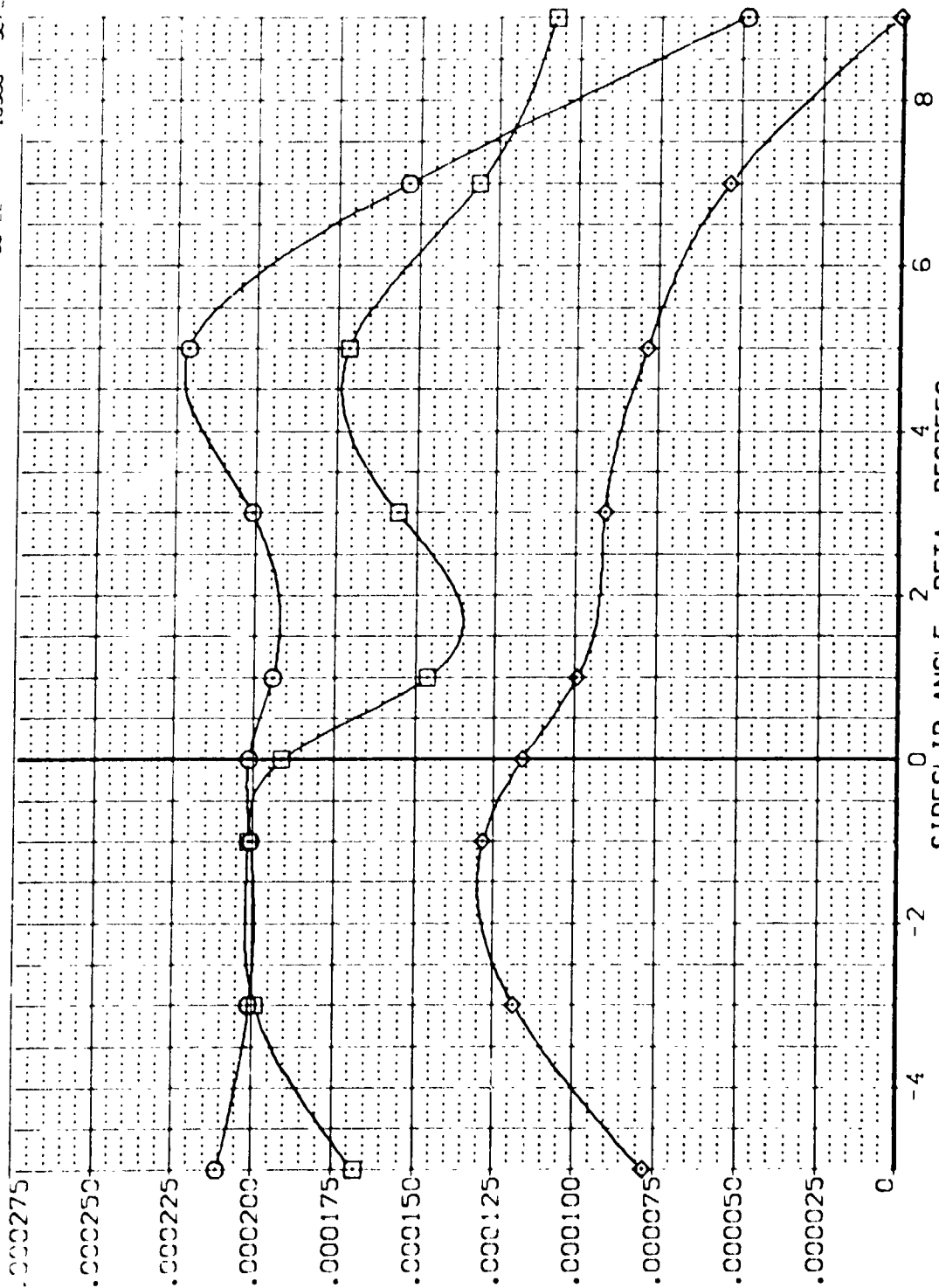


FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

COMACH = 3.50

PITCHING MOMENT COEFF. DERIV. WRT RUDDER DEFL., DCLMOR. PER DEG

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOF LAP	SPOBRN	REFERENCE INFORMATION
(VLC46)	ARC 87-747 CAS3C B C M F V I V	0.000	-10.000	-11.700	85.000	SR F 2.4210 SQ.FT.
(VLC47)	ARC 87-747 CAS3C B C M F V I V	10.000	-10.000	-11.700	85.000	LR F 14.2440
(VLC48)	ARC 87-747 CAS3C B C M F V I V	20.000	-10.000	-11.700	85.000	BR F 28.1000
						YMRD 32.3000
						YMRD 11.0000
						SCALE 1.0000

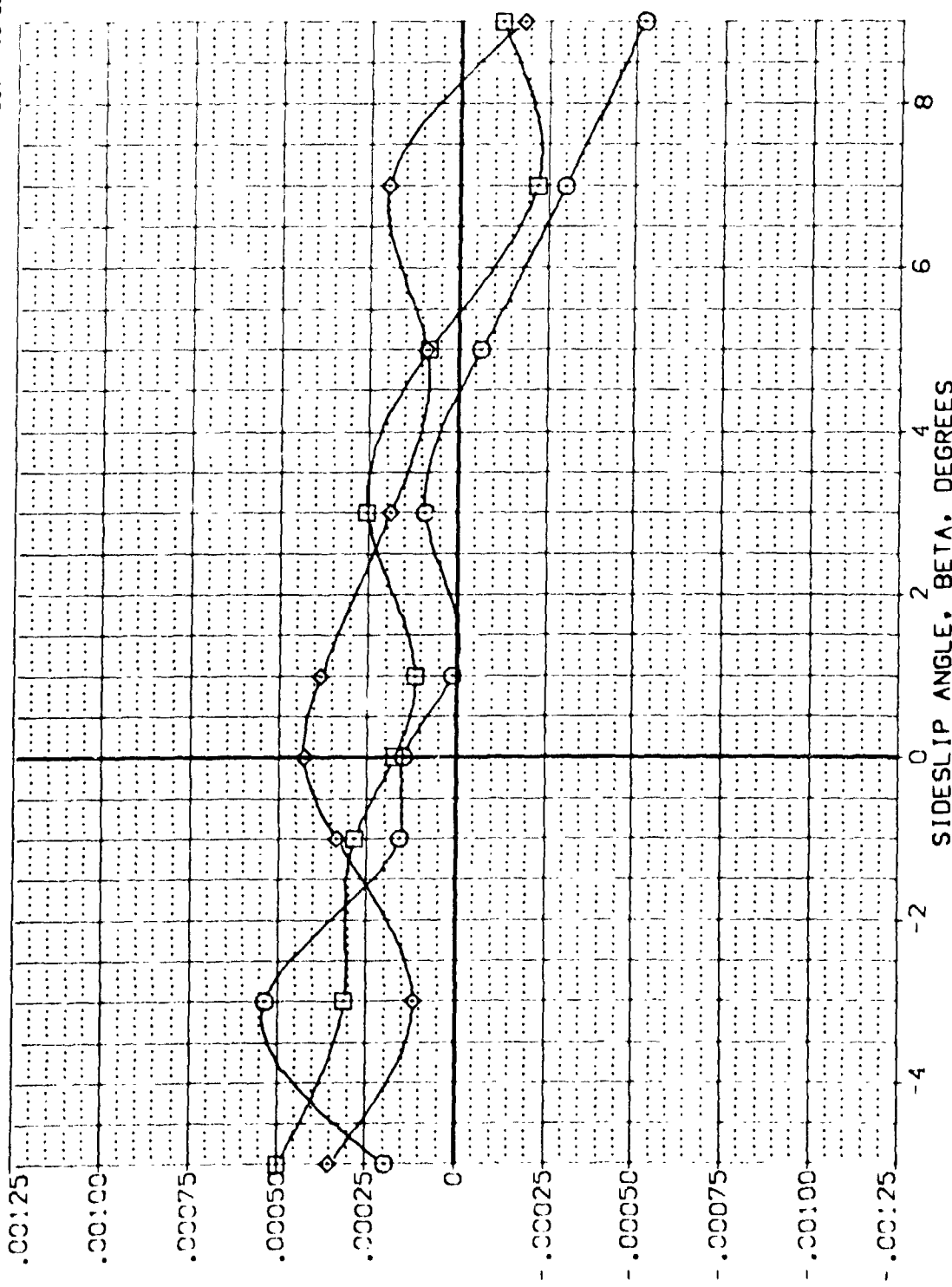


FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

(M)MACH = 2.50

PITCHING MOMENT COEFF. DERIV. WRT RUDDER DEFL., DCLMDR, PER DEG

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOF LAP	SPEEDBRK	REFERENCE INFORMATION
(VE-046)	ARC 87-747 OAS3C B C M F VI V	.000	-10.000	-11.700	85.000	SREF 2.4210 50.000
(VE-047)	ARC 87-747 OAS3C B C M F VI V	10.000	-10.000	-11.700	85.000	LREF 14.2440 10.000
(VE-048)	ARC 87-747 OAS3C B C M F VI V	20.000	-10.000	-11.700	85.000	BREF 28.1004 10.000
						XMREF 32.3010 10.000
						YMREF 11.0000 10.000
						ZMREF 11.0000 10.000
						SCALE .0300

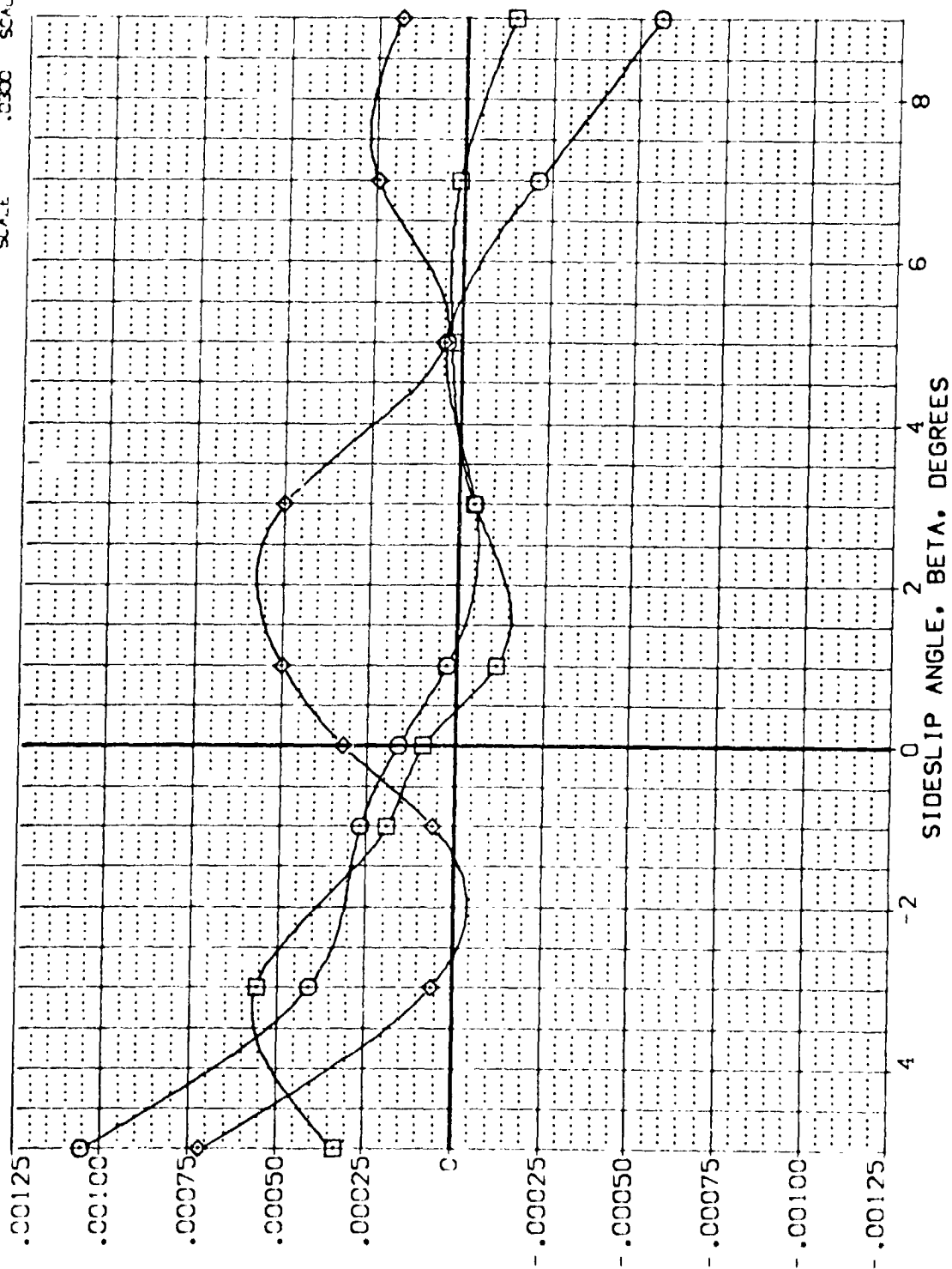


FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

(3)MAC = 3.00



PITCHING MOMENT COEFF. DERIV. WRT RUDDER DEFL., DCLMDR, PER DEG

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	DR	BOFLAP	SPOBRK	REFERENCE INFORMATION
[VE 045]	ARC 87-747 BAS3C B C M F VI V	0.000	-10.000	-11.700	85.000	SREF 2.4210 SQ.FT.
[VE 047]	ARC 87-747 BAS3C B C M F VI V	10.000	-10.000	-11.700	85.000	LREF 14.2440
[VE 048]	ARC 87-747 BAS3C B C M F VI V	20.000	-10.000	-11.700	85.000	BREF 28.1000
						XMREF 32.3000
						VMREF 11.2500
						SCALE .0000

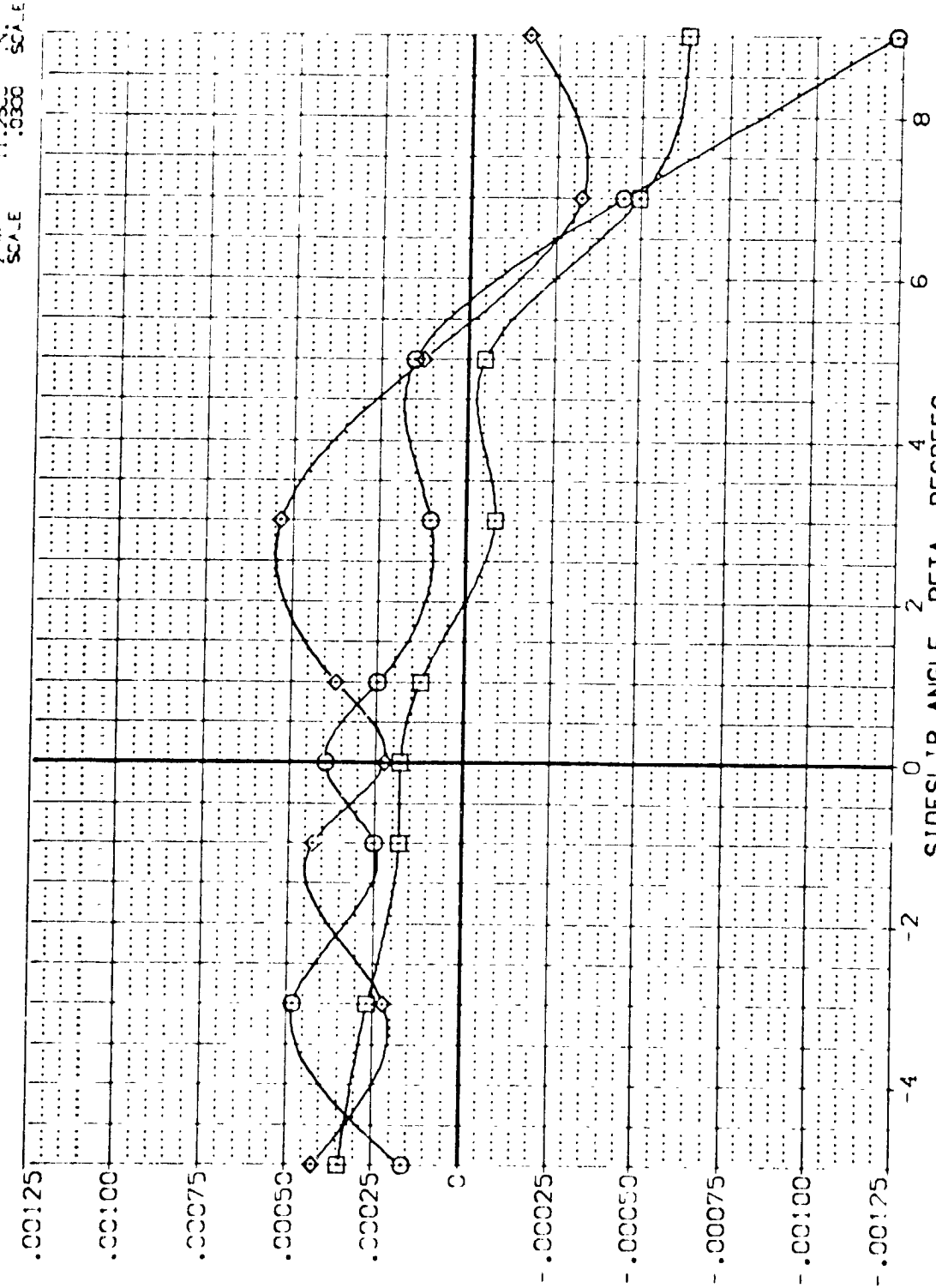


FIG. 24 RUDDER DERIVATIVES, SPEEDBRAKE 85 DEGREES

COYAC = 3.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA		RUDDER		BDF LAP		SPOBRK		REFERENCE INFORMATION	
(AL 075)	□	ARC 87-747	0A53C B C M F V	V	.000	.000	-11.700	25.000	SREF	2.4210	50. FT.		
(AL 012)	○	ARC 87-747	0A53C B C M F V	V	.000	.000	-11.700	55.000	LREF	14.2440	IN.		
(AL 039)	◇	ARC 87-747	0A53C B C M F V	V	.000	.000	-11.700	85.000	BREF	28.1004	IN.		
									XMRP	32.3010	IN.		
									YMRP	.0000	IN.		
									ZMRP	11.2500	IN.		
									SCALE	.0300	SCALE		

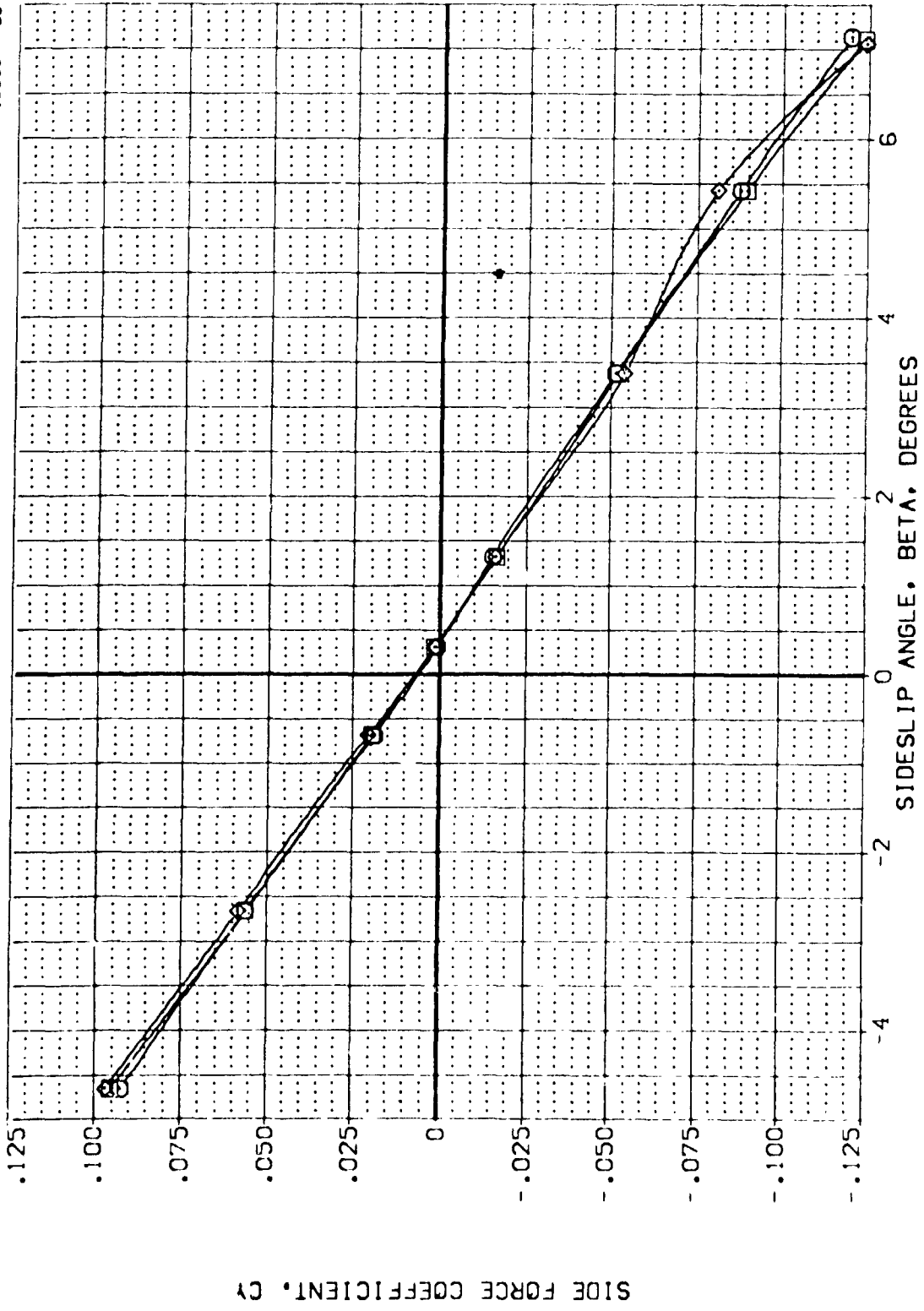


FIG. 25 SPEEDBRAKE EFFECTS  
 (MACH = 2.50)

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOX LAP	SPEED	REFERENCE INFORMATION
(AEL025)	□	ARC 87-747 QAS3C B C M F V1 V	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(AEL032)	□	ARC 87-747 QAS3C B C M F V1 V	.000	.000	-11.700	55.000	LREF 14.2440
(AEL038)	◇	ARC 87-747 QAS3C B C M F V1 V	.000	.000	-11.700	85.000	BREF 28.1000
							WREF 32.3000
							WREF 11.2500
							SCALE .0300

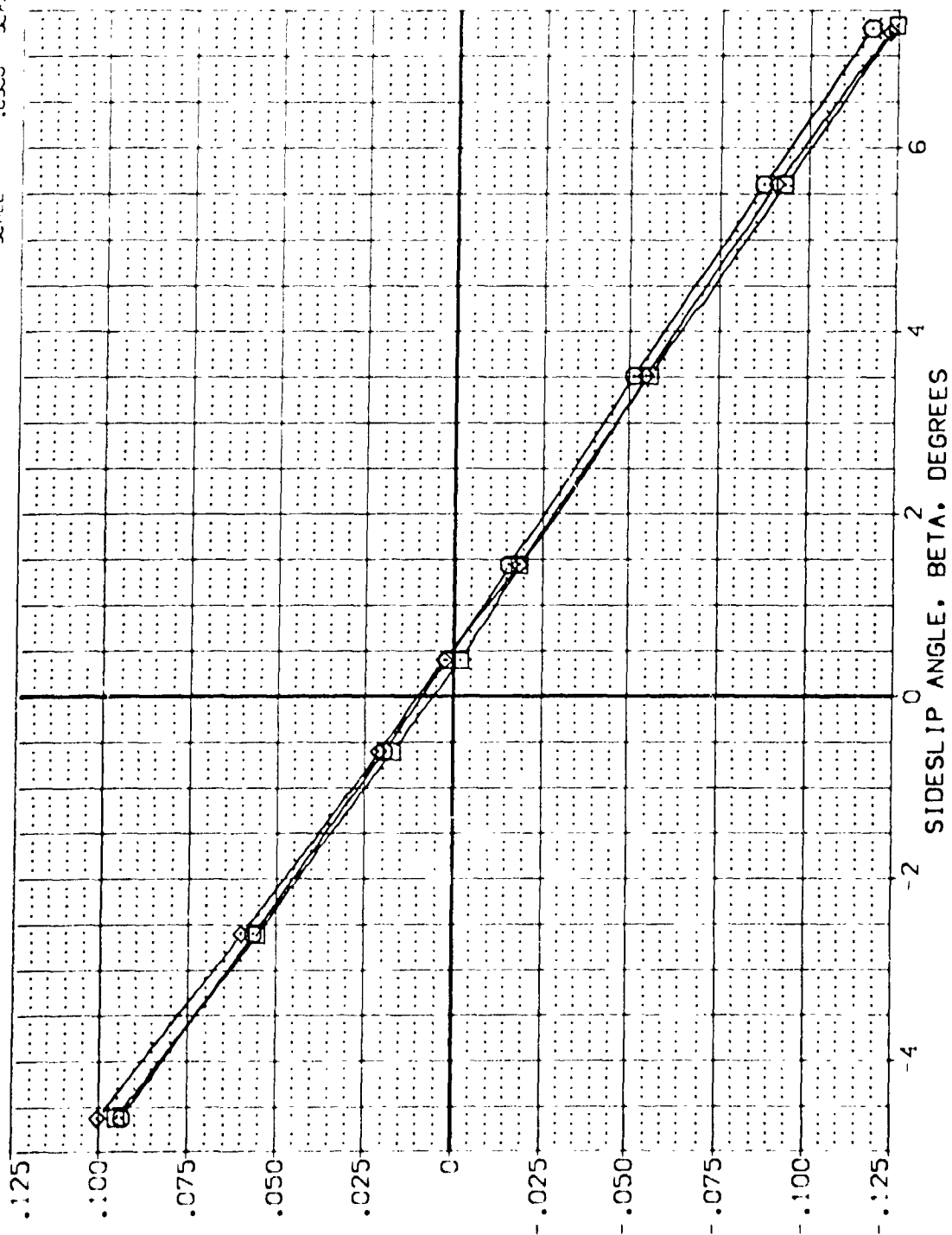


FIG. 25 SPEEDBRAKE EFFECTS

(B)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	R. LODER	BOF LAP	SPOBRK	REFERENCE INFORMATION
[AEL075]	ARC 87-747 QAS3C B C M F VI V	.000	.000	-11.700	75.000	SREF 2.4210 SQ. FT.
[AEL012]	ARC 87-747 QAS3C B C M F VI V	.000	.000	-11.700	55.000	LREF 14.2440
[AEL039]	ARC 87-747 QAS3C B C M F VI V	.000	.000	-11.700	85.000	BREF 28.1004
						XMPP 32.3010
						YMPP .0000
						ZMPP 11.2500
						SCALE .0300

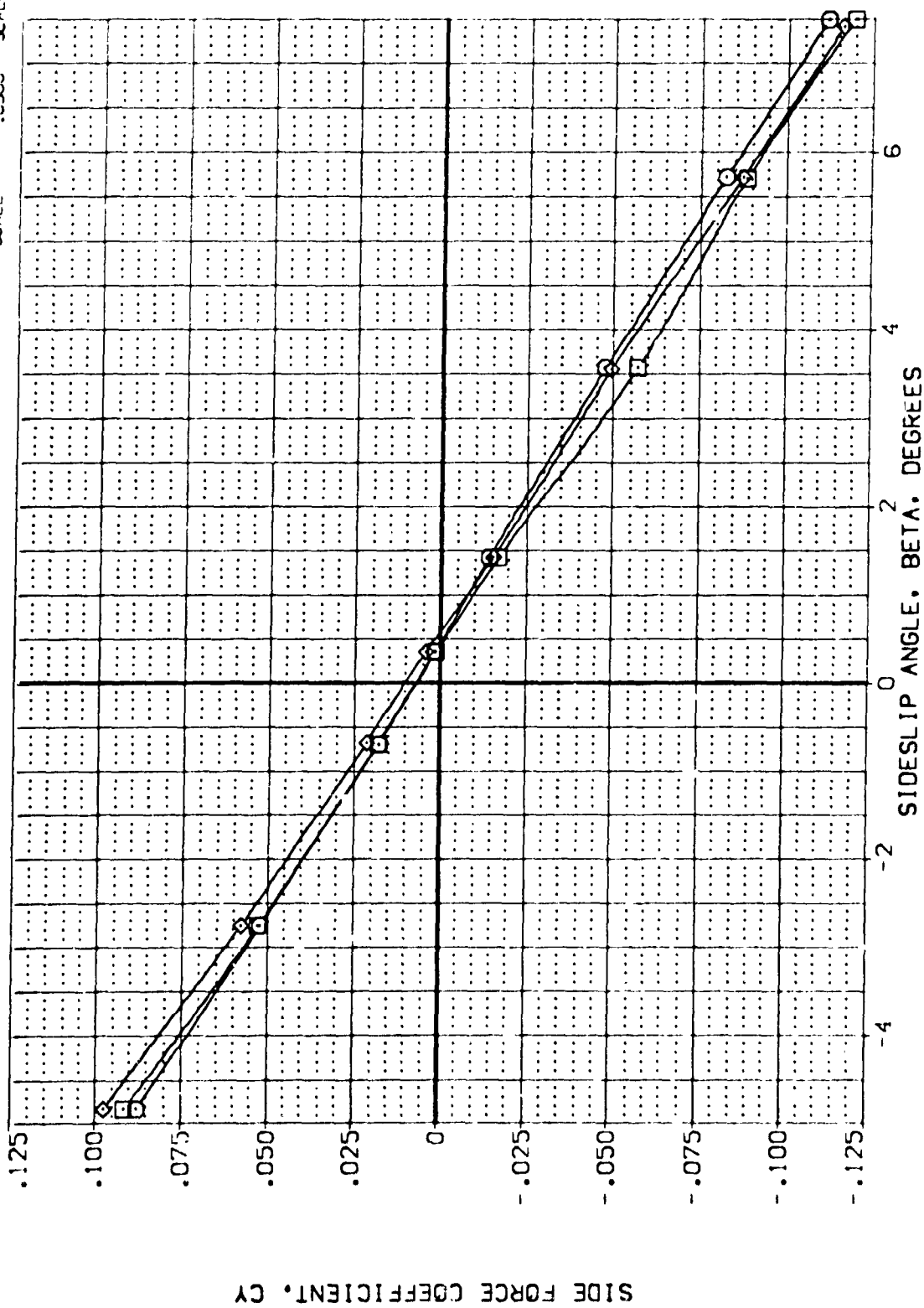
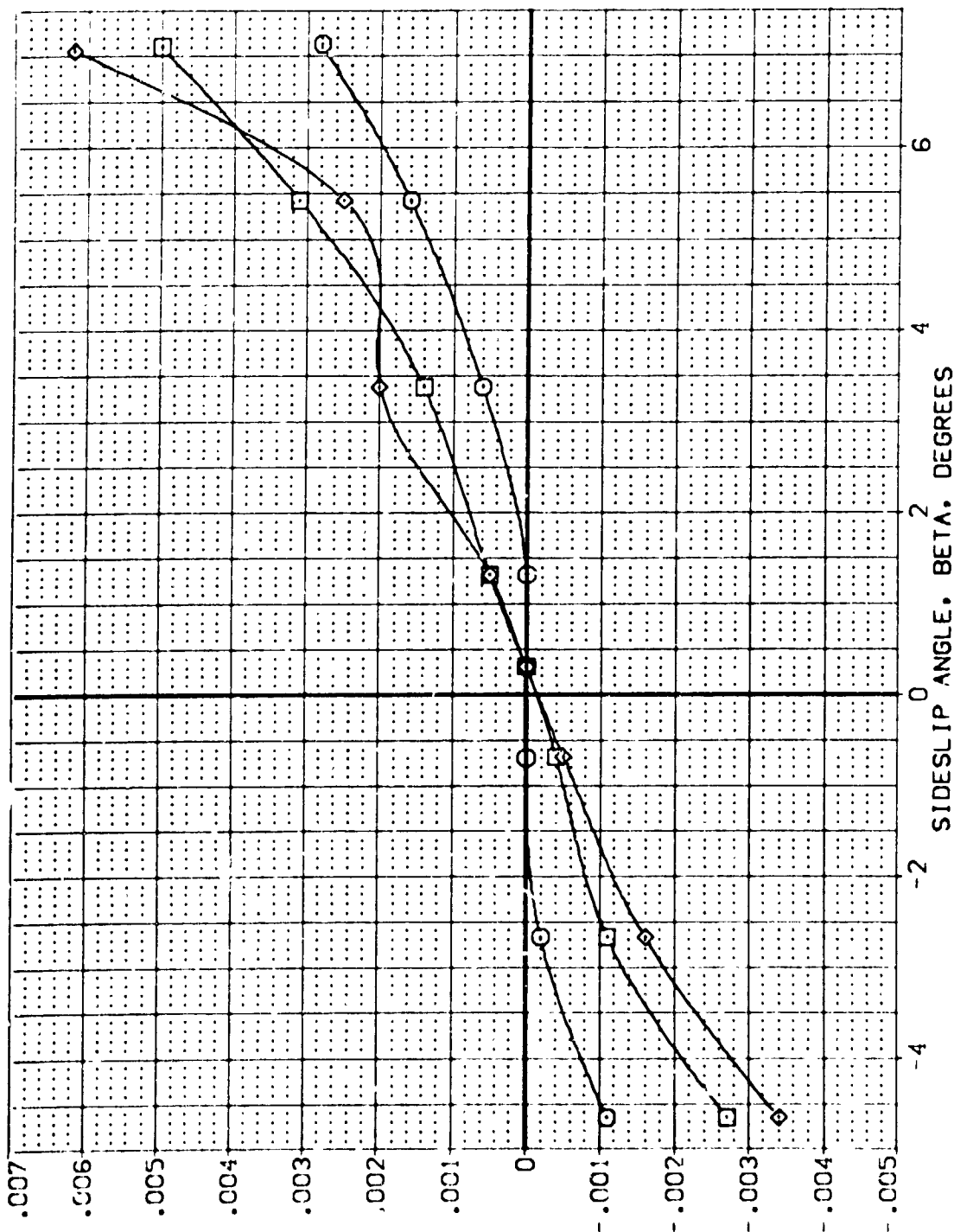


FIG. 25 SPEEDBRAKE EFFECTS

(C)MAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOF LAP	SPOBRK	REFERENCE INFORMATION
(AL-025)	ARC 87-747 BAS3C B C M F V I V	.000	.000	-11.700	75.000	SREF 2.4210 SC.FT.
(AL-012)	ARC 87-747 C-53C B C M F V I V	.000	.000	-11.700	55.000	LREF 14.2440
(AL-019)	ARC 87-747 OAS3C B C M F V I V	.000	.000	-11.700	85.000	BREF 28.1000
						YREF 32.3000
						ZREF .0000
						SCALE 11.2500
						SCALE .0300



YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

FIG. 25 SPEEDBRAKE EFFECTS

(A) VAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(AFLO75)	ARC 87-747 QAS3C B C M F VI	.000	.000	-11.700	25.000	SREF 2.4710
(AFLO75)	ARC 87-747 QAS3C B C M F VI	.000	.000	-11.700	55.000	LREF 14.2440
(AFLO75)	ARC 87-747 QAS3C B C M F VI	.000	.000	-11.700	85.000	BREF 28.1000
						YREF 37.5010
						YREF 11.2500
						SCALE .0300

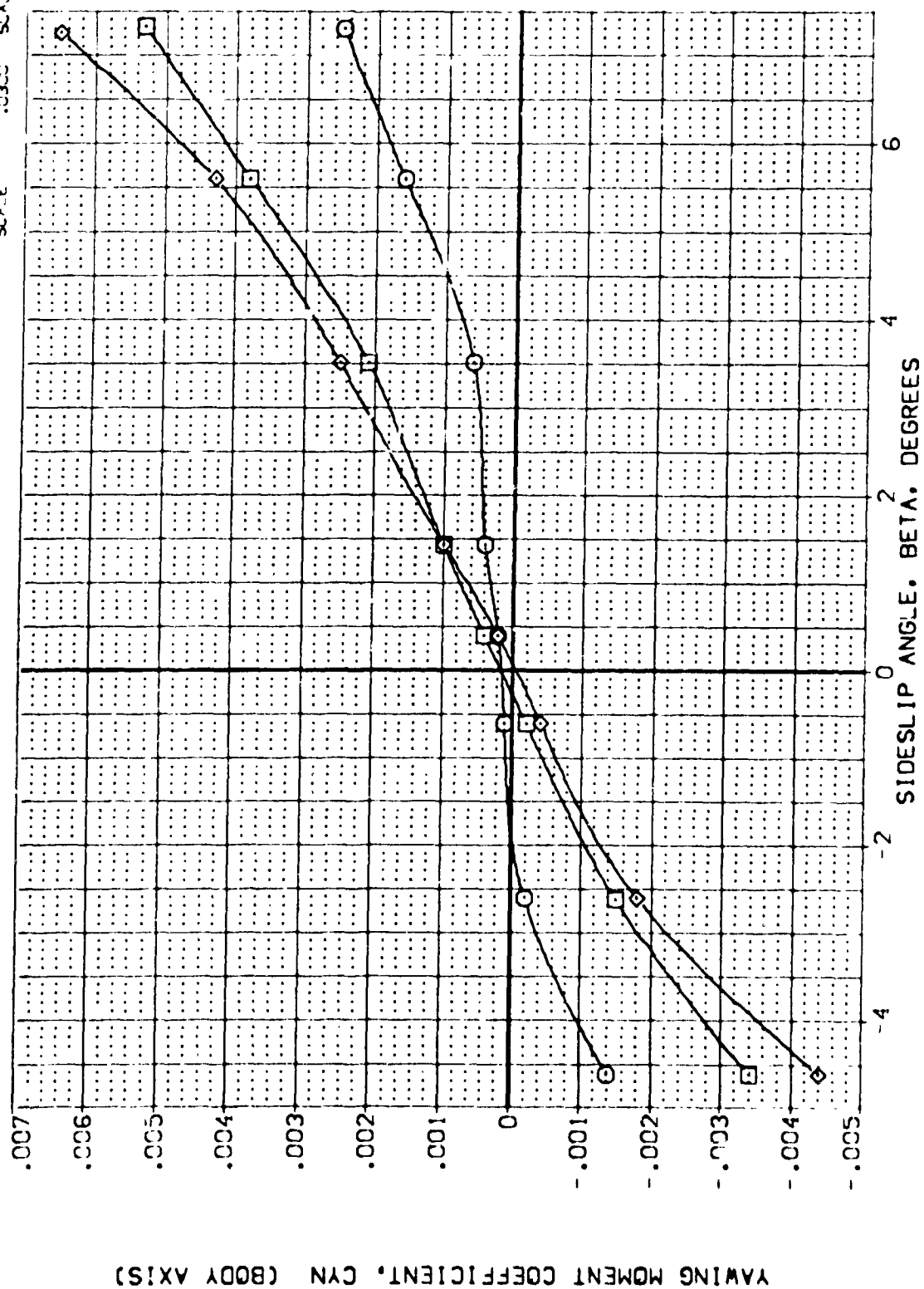


FIG. 25 SPEEDBRAKE EFFECTS

(3) VAS 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEEDBRK	REFERENCE INFORMATION
(AEL005)	ARC 87-747 CAS3C B C M F VI V	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(AEL012)	ARC 87-747 CAS3C B C M F VI V	.000	.000	-11.700	55.000	LREF 14.2440 IN.
(AEL038)	ARC 87-747 CAS3C B C M F VI V	.000	.000	-11.700	85.000	DREF 28.1034 IN.
						XP-15 32.5010 IN.
						YMRP .0000 IN.
						ZMRP 11.2000 IN.
						SCALE .0000

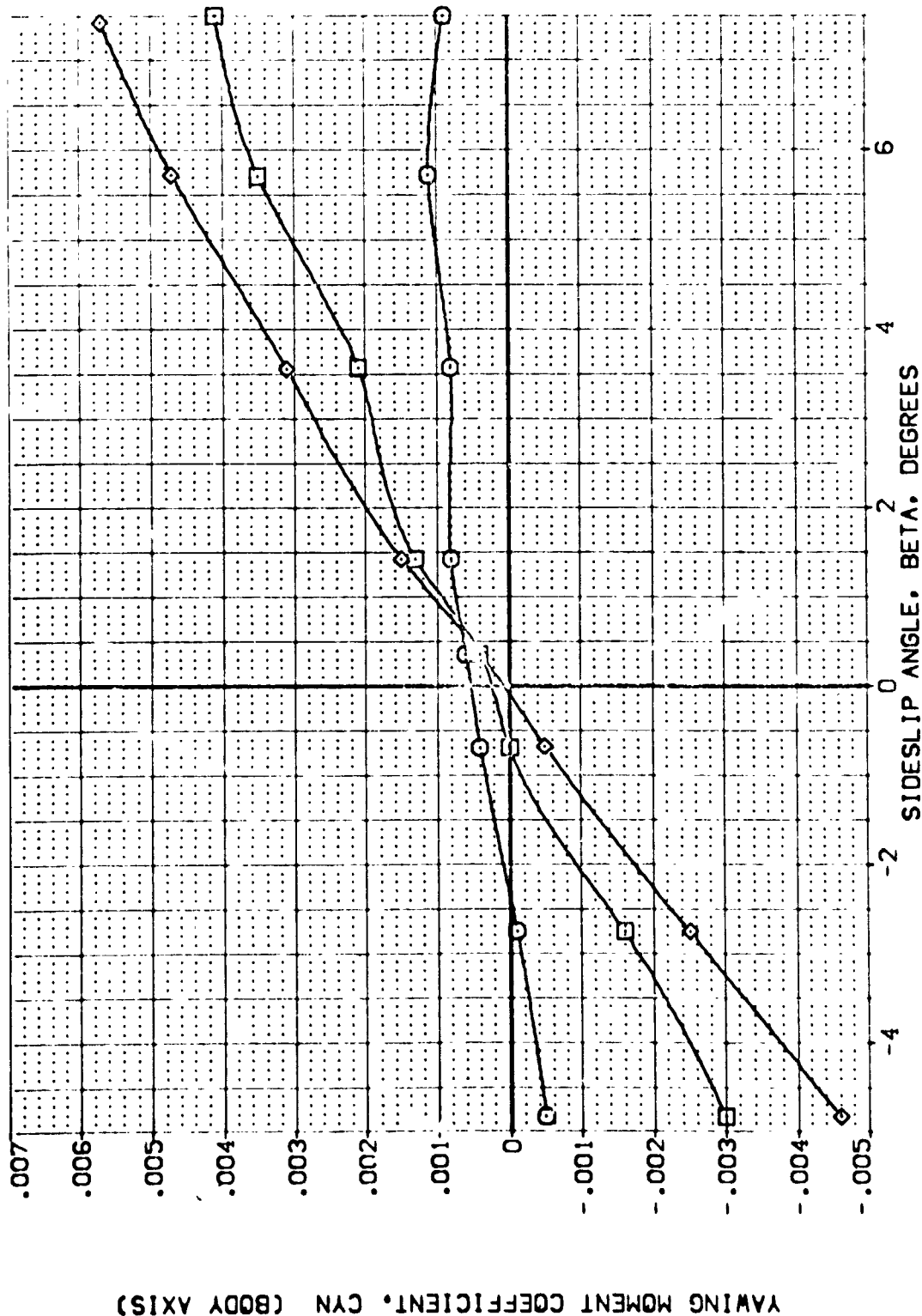


FIG. 25 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BD/LAP	SPEEDK	REFERENCE INFORMATION
(AEL023)	ARC 67-747 BASIC B C H F V I V	.000	.000	-11.700	25.000	SREF 2.4210 50.FT.
(AEL012)	ARC 67-747 BASIC B C H F V I V	.000	.000	-11.700	55.000	LREF 14.2440 IN.
(AEL033)	ARC 67-747 BASIC B C H F V I V	.000	.000	-11.700	85.000	DREF 28.1004 IN.
						YREF 32.3010 IN.
						ZREF .0000 IN.
						SCALE 11.2500 IN.

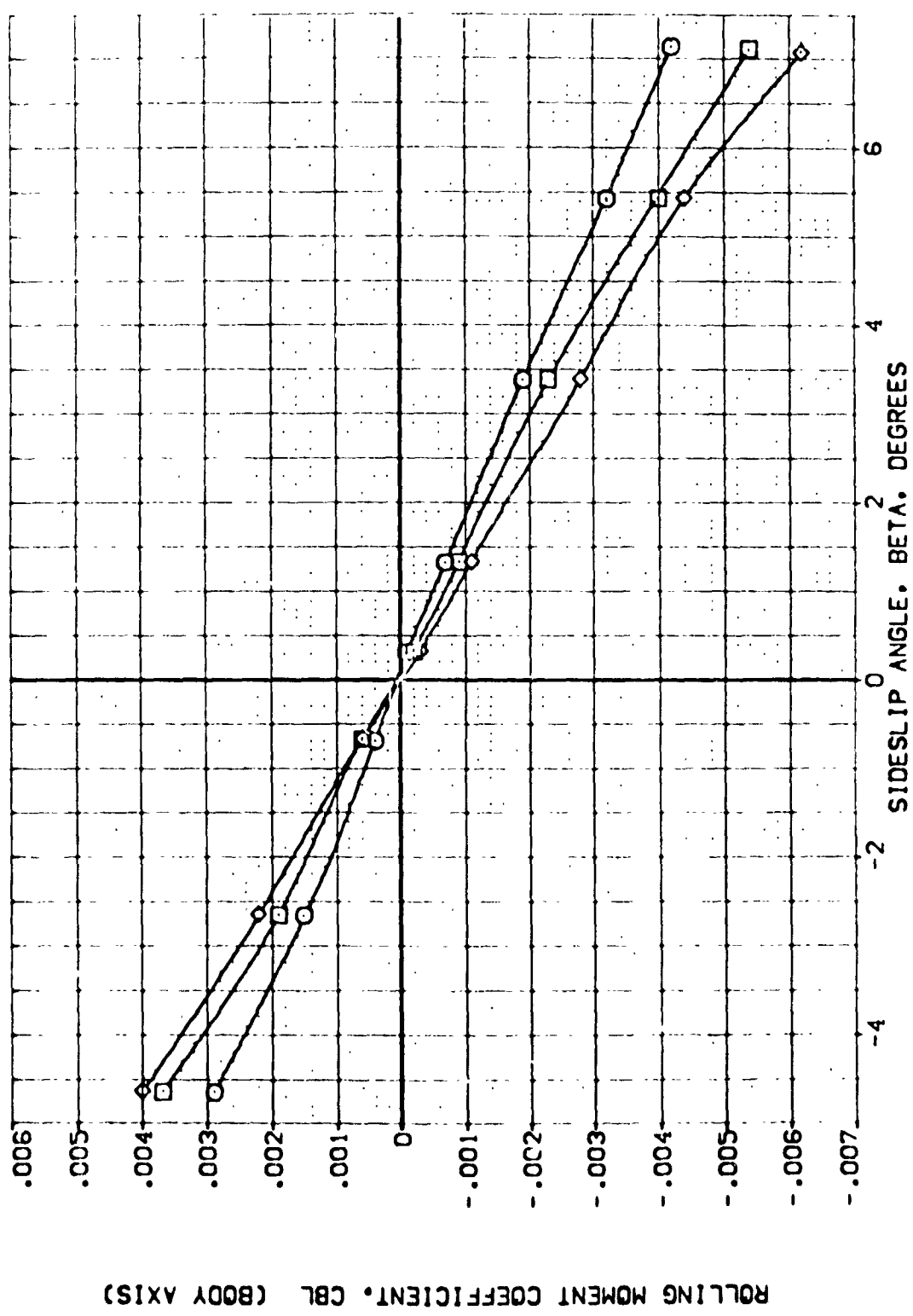


FIG. 25 SPEEDBRAKE EFFECTS

(A) MACH = 2.50



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA		RUDDER		BODY AP		SPLOBB		REFERENCE INFORMATION	
[AEL005]	ARC 87-747	CAS3C	B C H F VI	V	.000	.000	-11.700	25.000	SREF	2.4210	SQ.FT.		
[AEL012]	ARC 87-747	CAS3C	B C H F VI	V	.000	.000	-11.700	55.000	LREF	14.2440	IN.		
[AEL033]	ARC 87-747	CAS3C	B C H F VI	V	.000	.000	-11.700	85.000	BREF	28.0004	IN.		
									XREF	32.3010	IN.		
									YREF	.0000	IN.		
									ZREF	11.2500	IN.		
									SCALE	.0700	IN.		

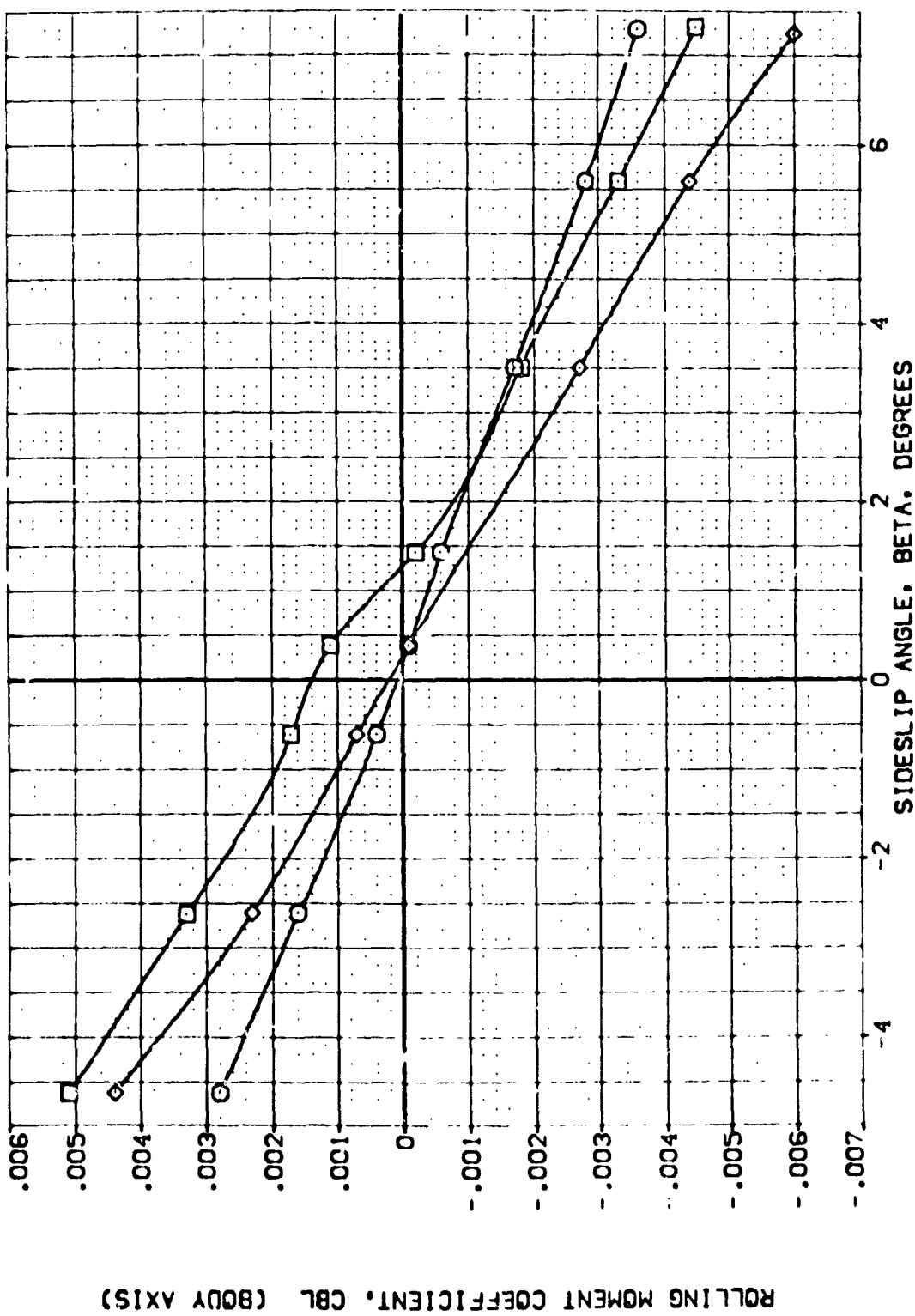


FIG. 25 SPEEDBRAKE EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(AEL025)	ARC 87-747 CAS3C B C H F VI V	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(AEL012)	ARC 87-747 CAS3C B C H F VI V	.000	.000	-11.700	55.000	LREF 14.2440 IN.
(AEL033)	ARC 87-747 CAS3C B C H F VI V	.000	.000	-11.700	63.000	BREF 28.1004 IN.
						YREF 32.3010 IN.
						YREF 11.0000 IN.
						YREF 11.2500 IN.
						SCALE .0300

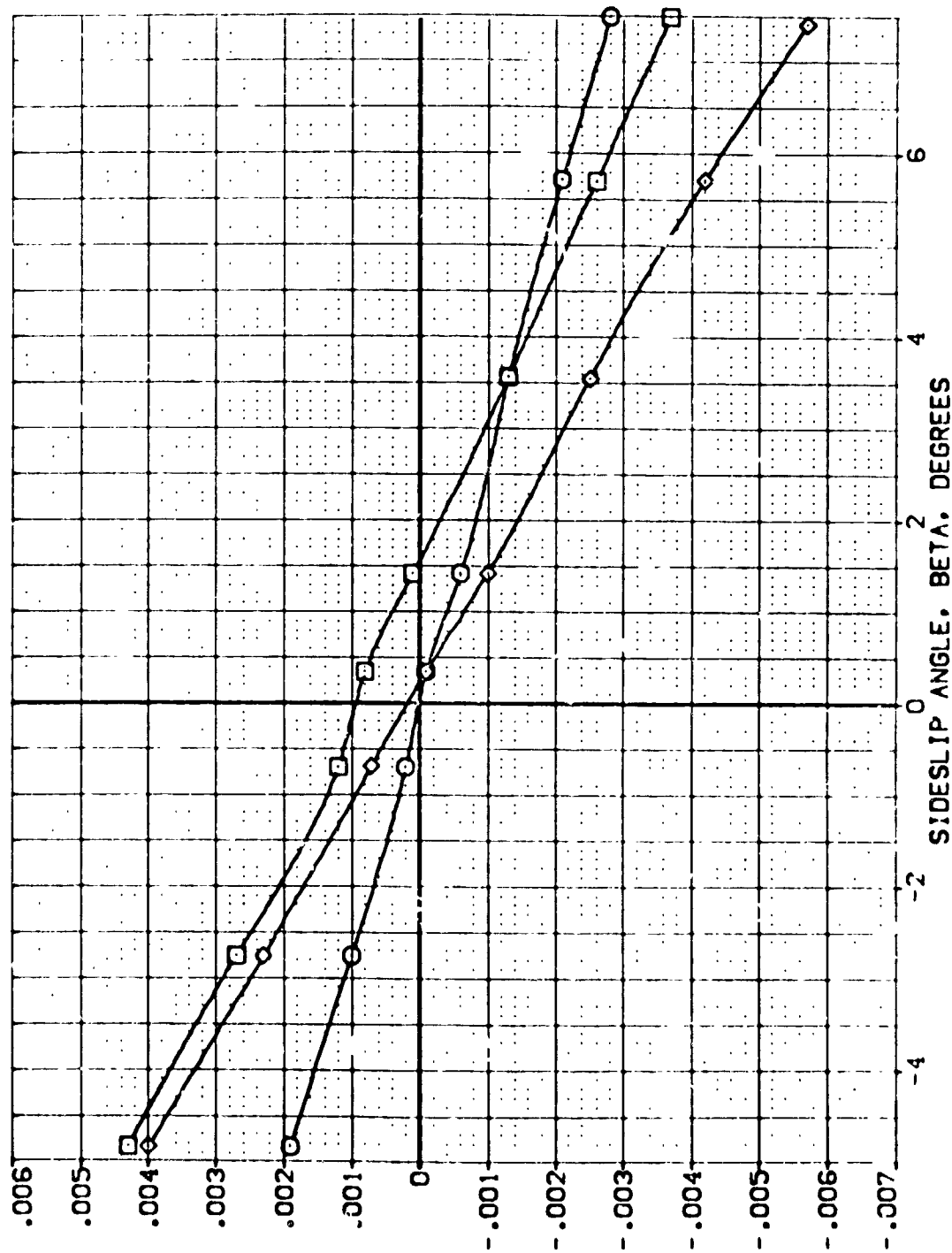


FIG. 25 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION:	
[AEL026]	ARC 87-747 CAS3C B C H F VI V	10.000	.000	-11.700	25.000	SREF	2.4210 SQ.FT.
[AEL013]	ARC 87-747 CAS3C B C H F VI V	10.000	.000	-11.700	53.000	LREF	14.2440 IN.
[AEL040]	ARC 87-747 CAS3C B C H F VI V	10.000	.000	-11.700	65.000	BREF	28.1004 IN.
						XREF	32.3010 IN.
						YREF	.0000 IN.
						ZREF	11.2500 IN.
						SCALE	.0300

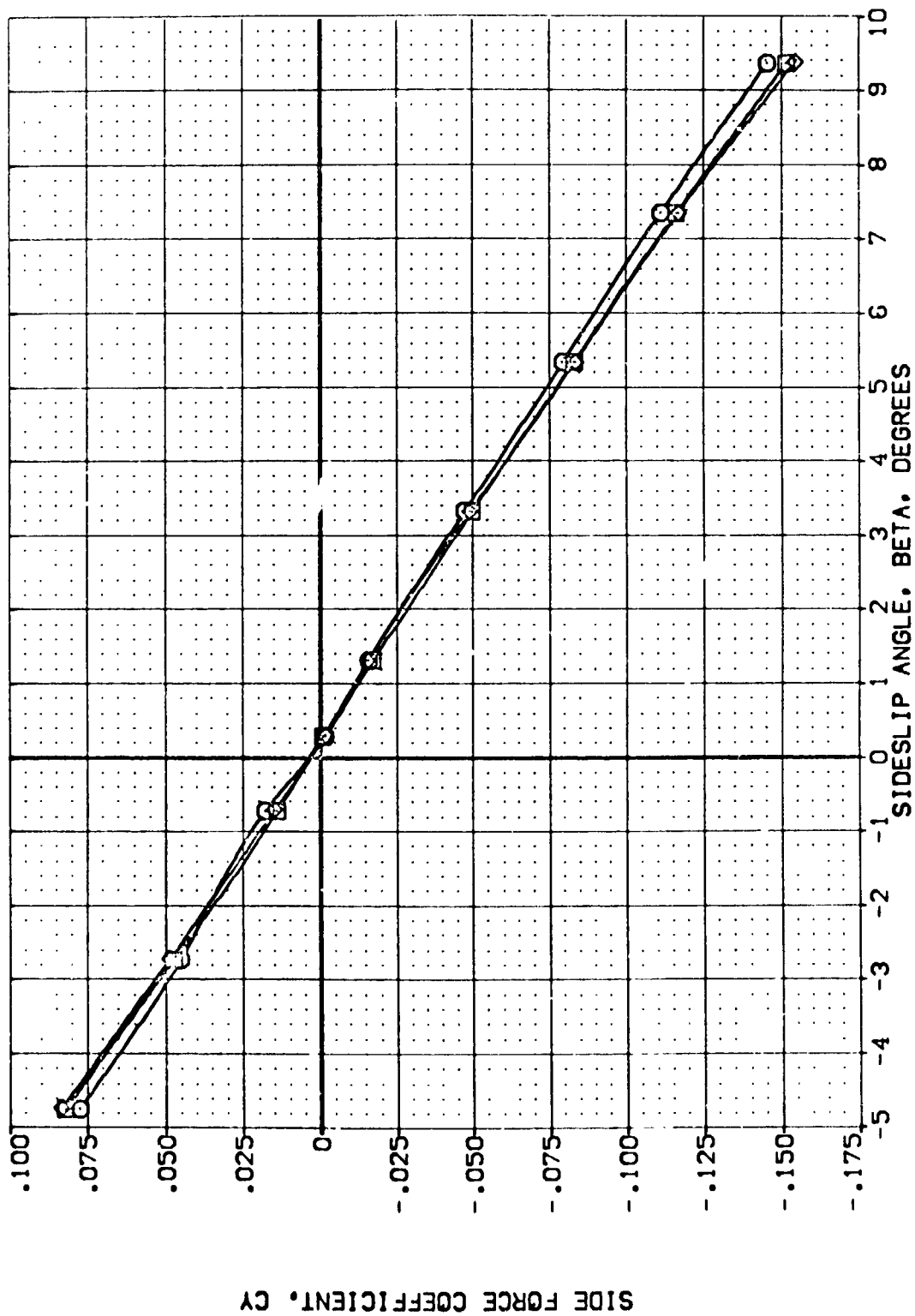


FIG. 25 SPEEDBRAKE EFFECTS

(A)MACH = 2.50

DATA SET SYMB.	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOX LAP	SPOBRK	REFERENCE INFORMATION		
(AEL026)	ARC 87-747 DAS3C B C M F VI	10.000	.000	-11.700	25.000	SREF	2.4210	50.00
(AEL013)	ARC 87-747 DAS3C B C M F VI	10.000	.000	-11.700	55.000	LREF	14.2440	10.00
(AEL040)	ARC 87-747 DAS3C B C M F VI	10.000	.000	-11.700	85.000	BREF	28.1004	10.00
						XMREF	32.3010	10.00
						YMREF	11.7500	10.00
						ZMREF	11.7500	10.00
						SCALE	.0300	SCALE

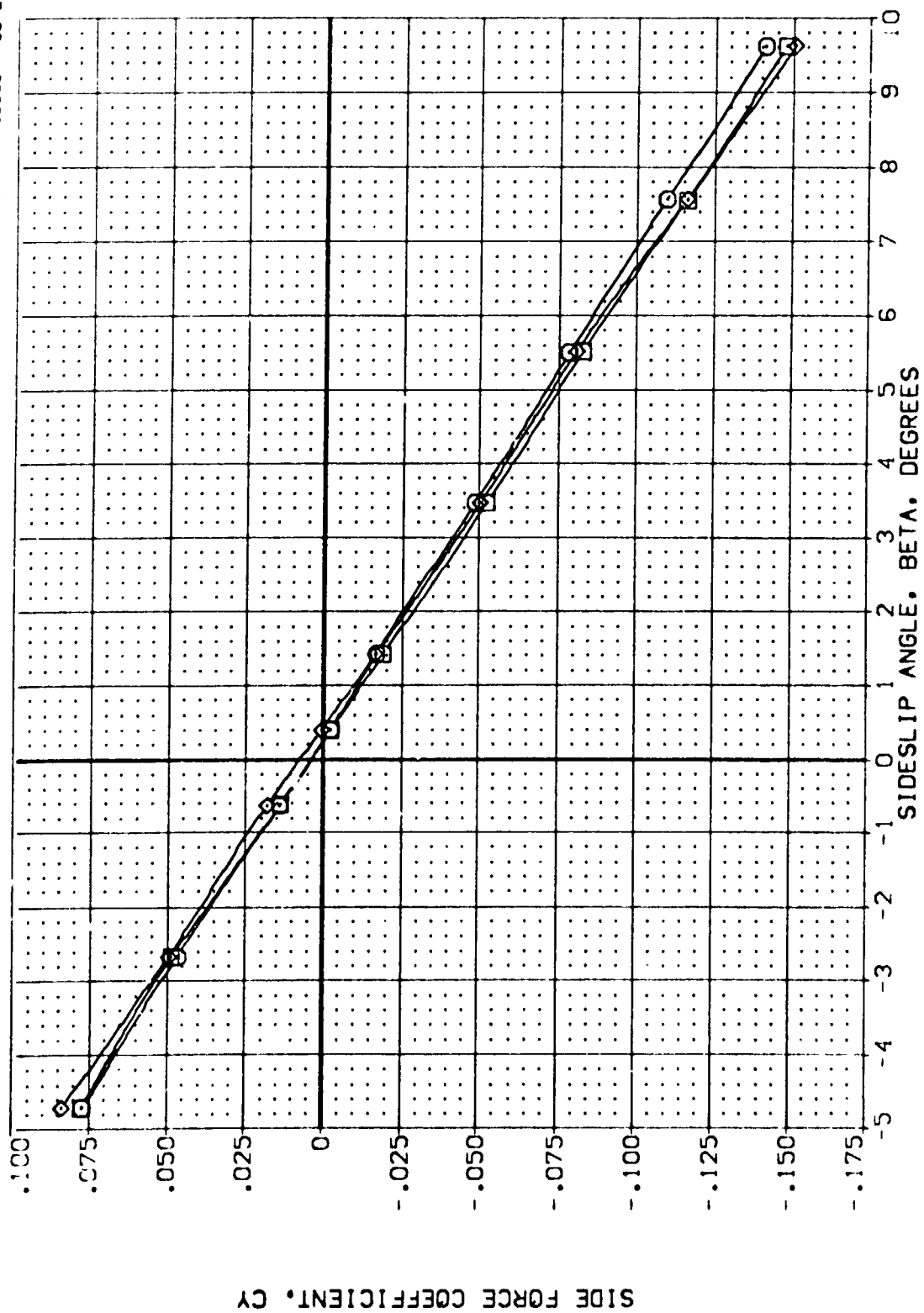


FIG. 25 SPEEDBRAKE EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEED	REFERENCE INFORMATION
[AELO26]	ARC 87-747 DAS3C B C M F VI V	10.000	.000	-11.700	75.000	SREF 2.4210 SC.FT.
[AELO13]	ARC 87-747 DAS3C B C M F VI V	10.000	.000	-11.700	55.000	LREF 14.2440
[AELO40]	ARC 87-747 DAS3C B C M F VI V	10.000	.000	-11.700	85.000	BREF 28.1004
						XMRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

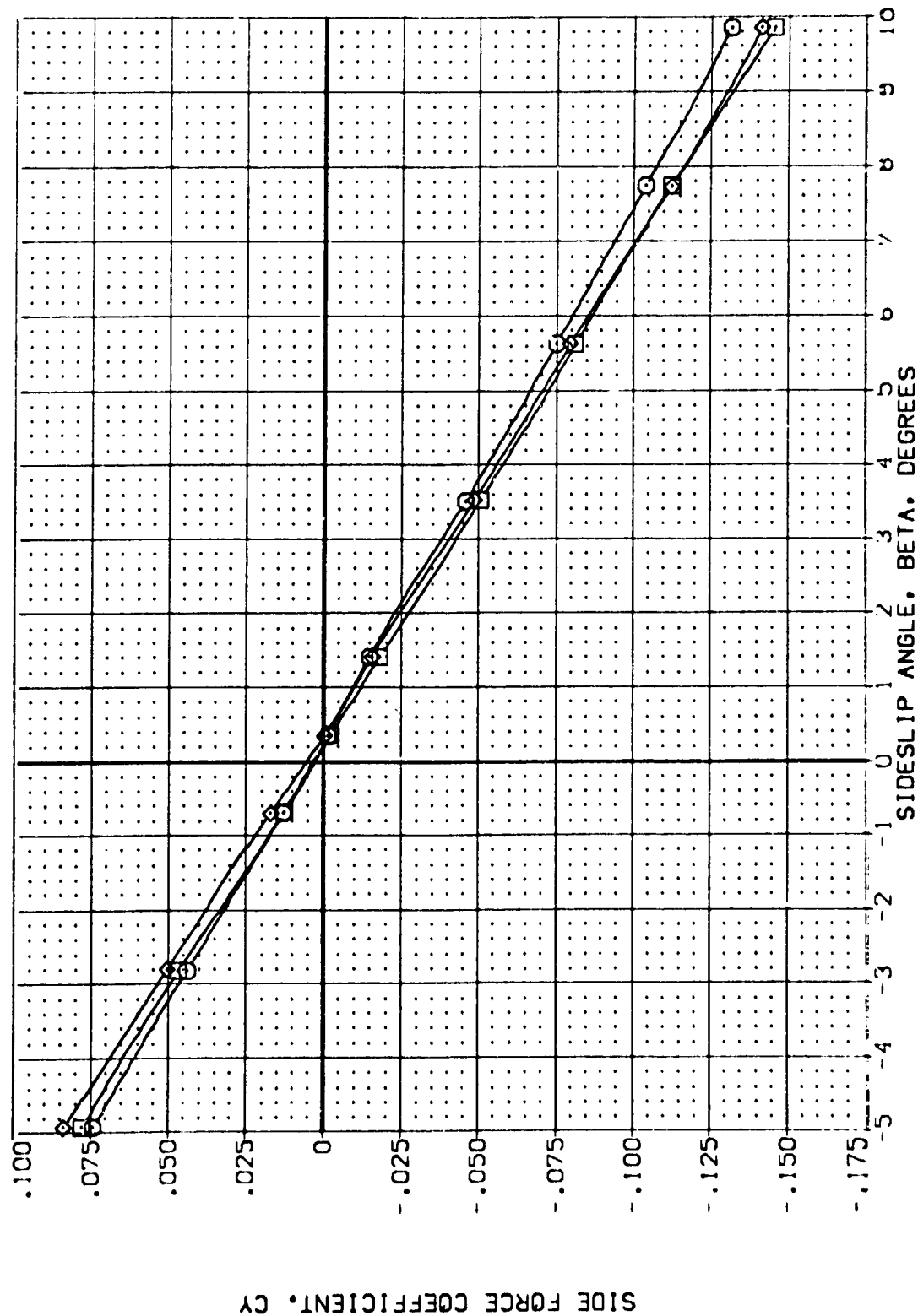


FIG. 25 SPEEDBRAKE EFFECTS

[C]MAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON- NON- NON-	RV/L RV/L RV/L	ALPHA	RUDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(AE-076)	ARC 87-747 OAS3C B C M F VI V			10.000	.000	-11.700	25.000	SREF 2.4210 50.FT.
(AE-013)	ARC 87-747 OAS3C B C M F VI V			10.000	.000	-11.700	55.000	LREF 14.2440
(AE-040)	ARC 87-747 OAS3C B C M F VI V			10.000	.000	-11.700	85.000	BREF 28.1004
								XMRP 32.3010
								YMRP 11.2500
								ZMRP .0300
								SCALE

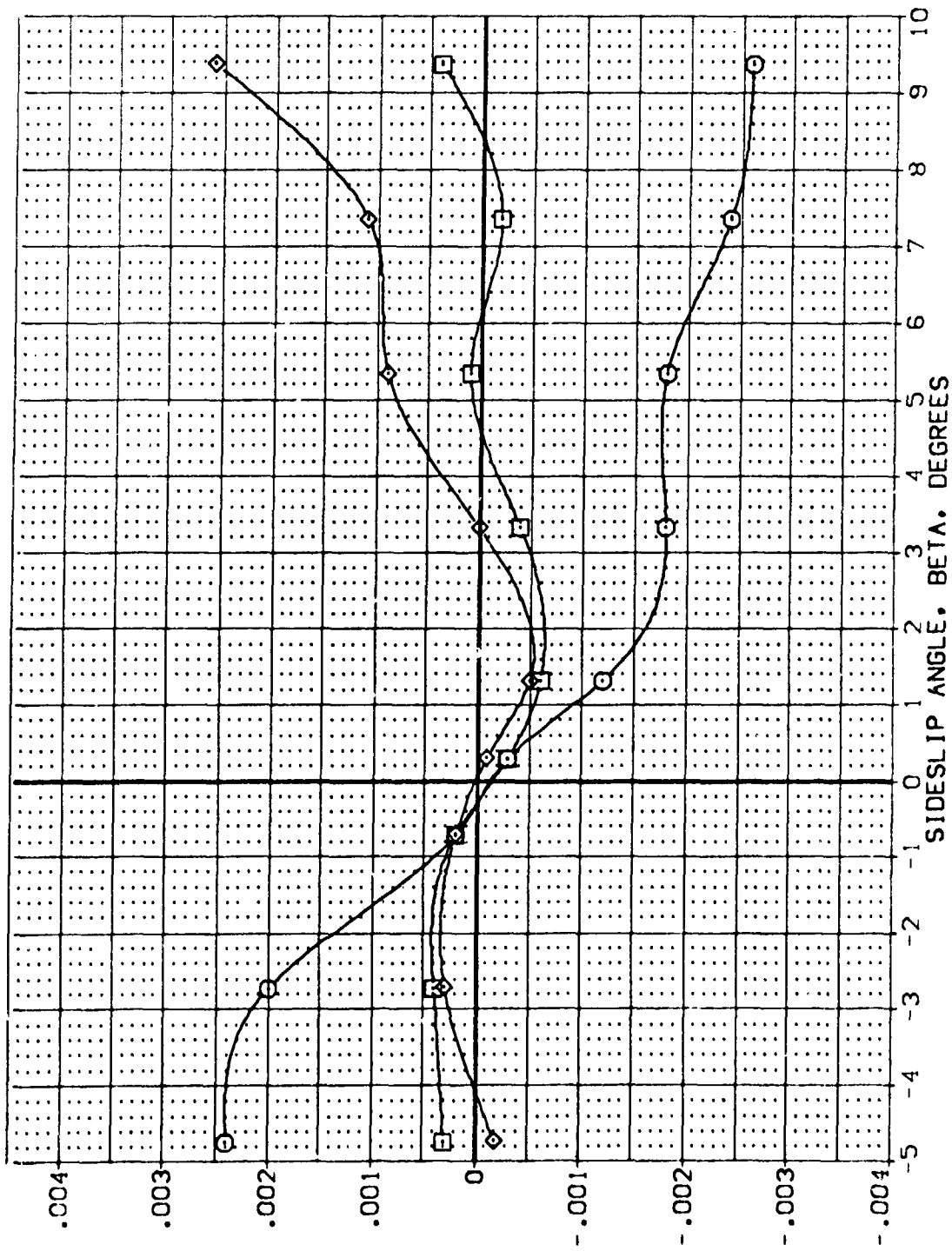


FIG. 25 SPEEDBRAKE EFFECTS

(A)MAC = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
[AELO76]	ARC 87-747 QAS3C B C M F VI	10.000	.000	-11.700	25.000	SREF 2.4210 SC.FT.
[AELO13]	ARC 87-747 QAS3C B C M F VI	10.000	.000	-11.700	55.000	LREF 14.2440
[AELO40]	ARC 87-747 QAS3C B C M F VI	10.000	.000	-11.700	85.000	BREF 28.1004
						XMRP 32.5010
						YMRP .0000
						ZMRP 11.7500
						SCALE .0300

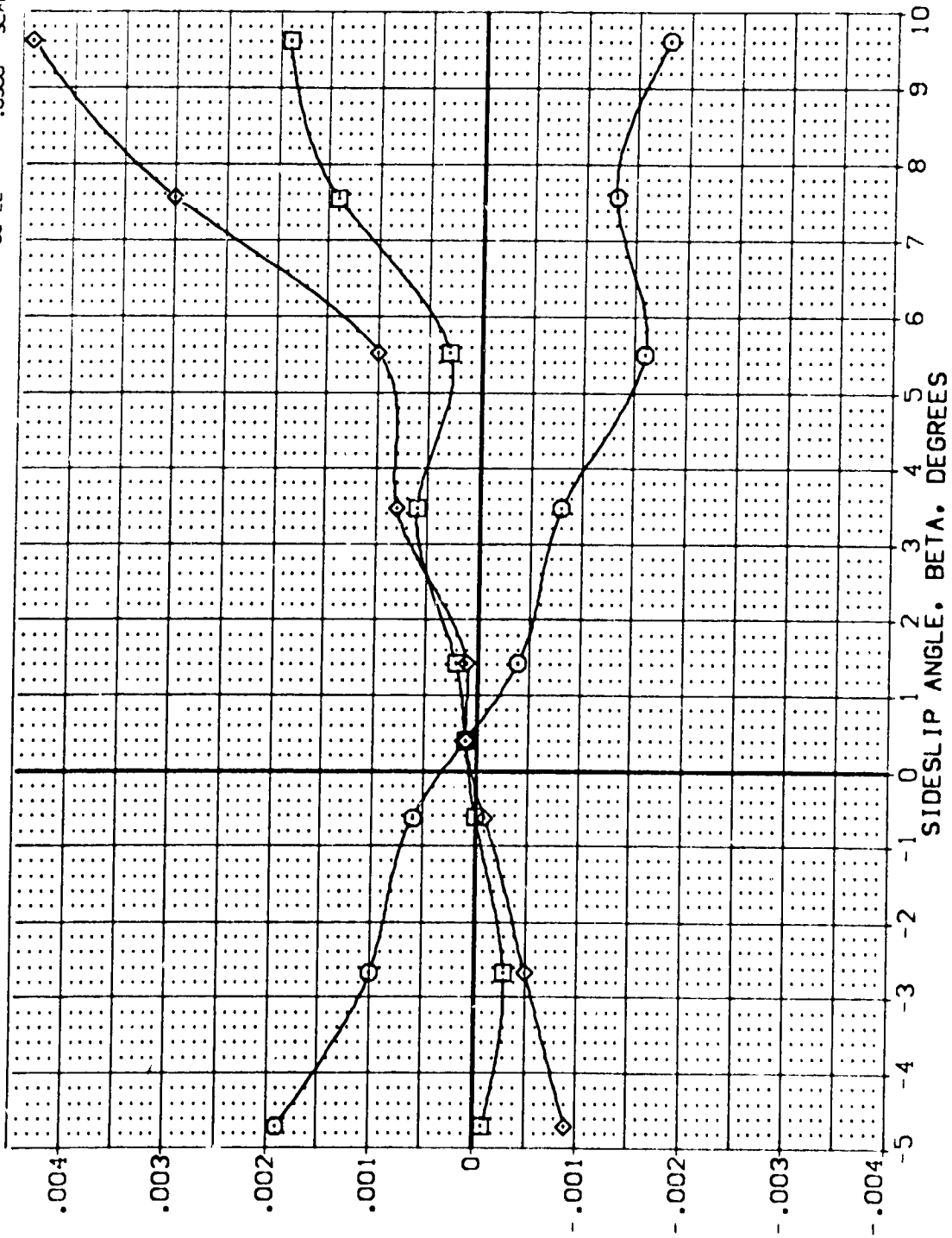


FIG. 25 SPEEDBRAKE EFFECTS

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON:	RV/L	ALPHA	RUDDER	BD/LAP	SPOBRK	REFERENCE INFORMATION
(AFLO26)	ARC 87-747 OAS3C B C M F VI V	NON:	RV/L	10.000	.000	-11.700	25.000	SREF 2.4210 50.000
(AFLO13)	ARC 87-747 OAS3C B C M F VI V	NON:	RV/L	10.000	.000	-11.700	55.000	LREF 14.2440 10.000
(AFLO10)	ARC 87-747 OAS3C B C M F VI V	NON:	RV/L	10.000	.000	-11.700	85.000	BREF 28.1004 10.000
								YMRP 32.3010 10.000
								ZMRP 11.2500 10.000
								SCALE .0300

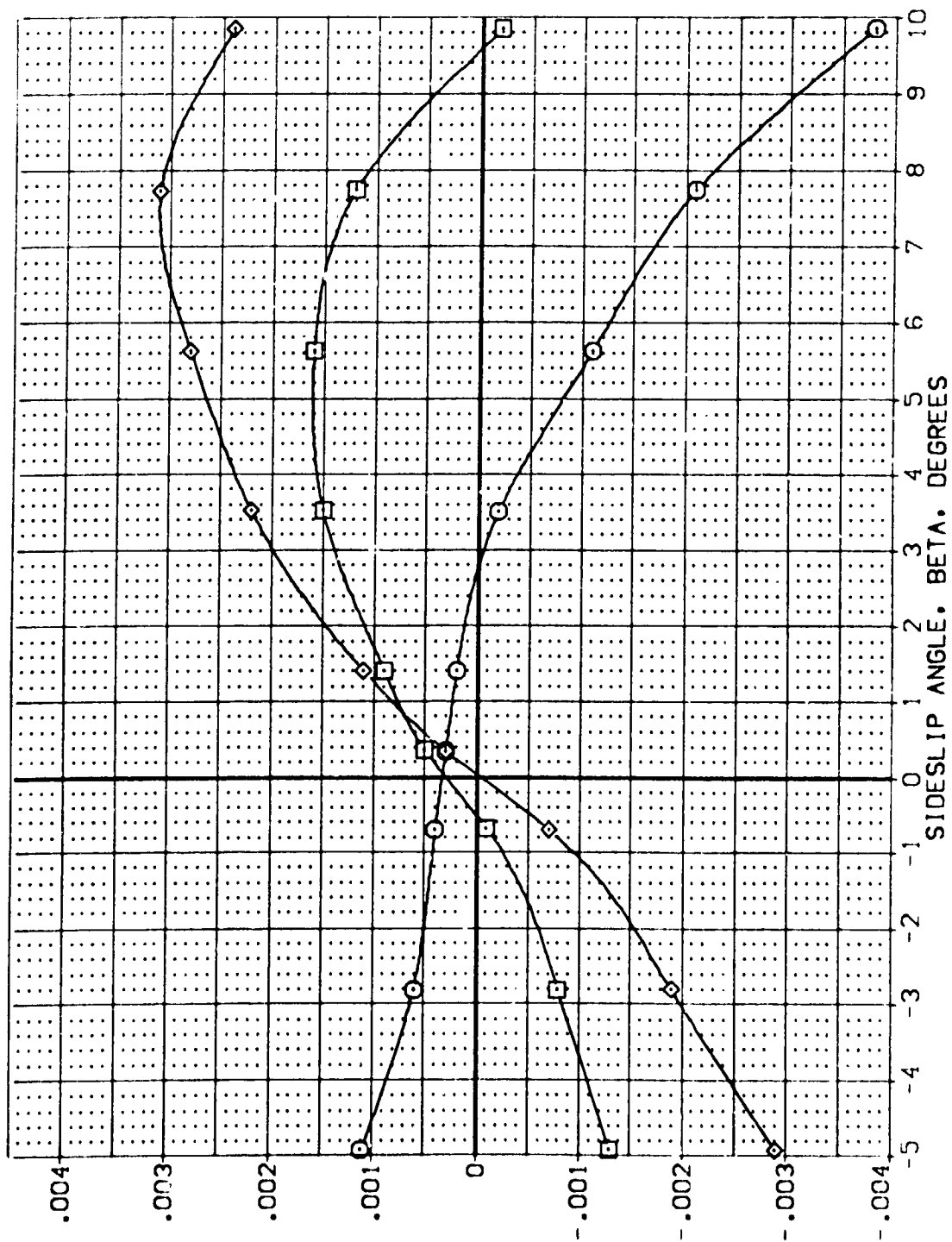


FIG. 25 SPEEDBRAKE EFFECTS

(C)MAC = 3.50



DATA SET SYMBOL: [AEL026] [AEL033] [AEL040]

CONFIGURATION DESCRIPTION: ARC 87-747 OAS3C B C M F V1 V1 V1  
ARC 87-747 OAS3C B C M F V1 V1 V1  
ARC 87-747 OAS3C B C M F V1 V1 V1

ALPHA: 10.000 10.000 10.000

RUDDER: .000 .000 .000

BOFLAP: -11.700 -11.700 -11.700

SPOBRK: 25.000 55.000 85.000

REFERENCE INFORMATION: SREF 7.4210 SQ.FT.  
LREF 14.2440 N.  
BREF 28.1304 N.  
XMRP 32.3010 N.  
YMRP .0000 N.  
ZMRP 11.2500 N.  
SCALE .0300 N.

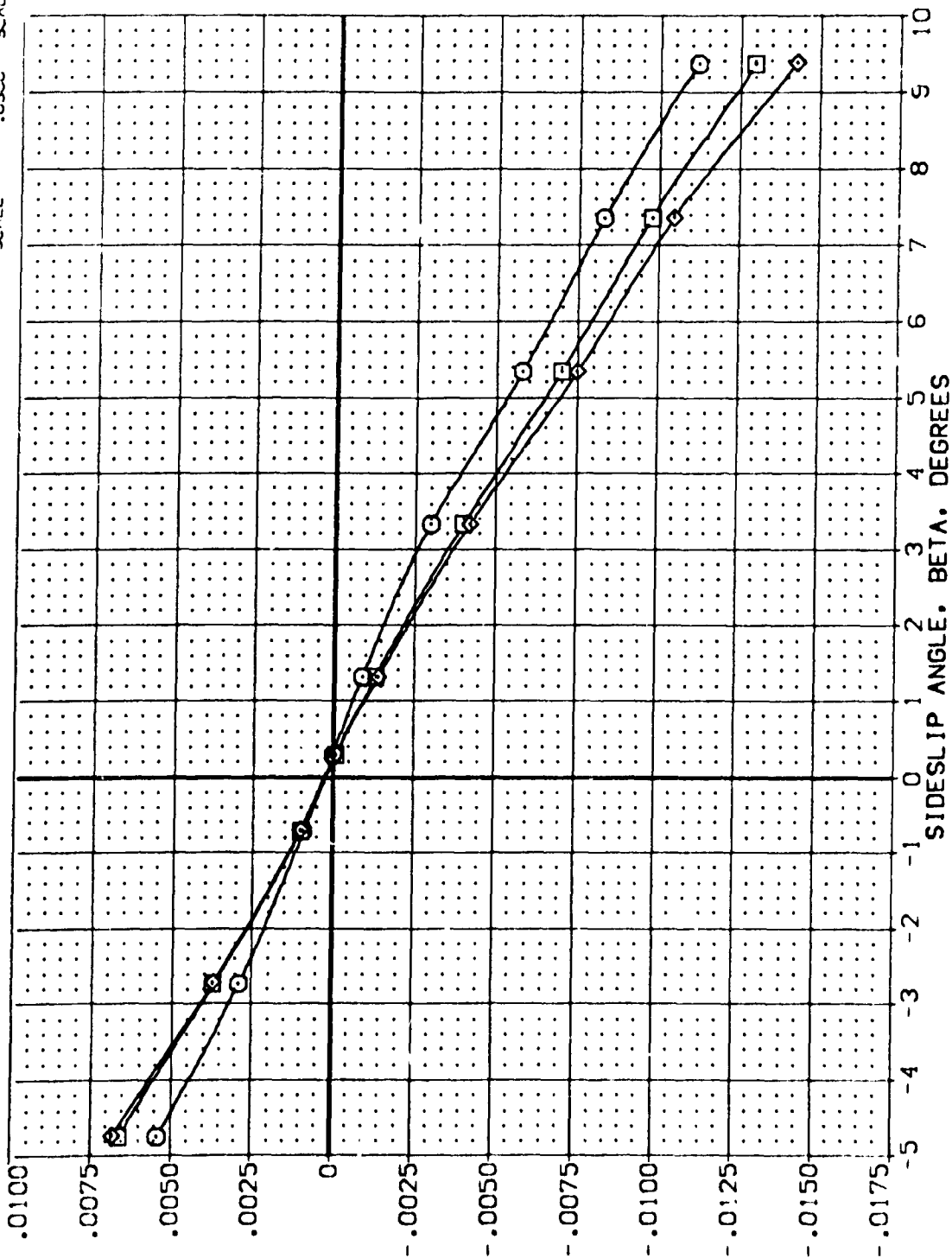


FIG. 25 SPEEDBRAKE EFFECTS

(A)MAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RJODER	BDF LAP	SPOBRK	REFERENCE INFORMATION
(ALC026)	ARC 87-747 DA53C B C M F VI V	10.000	.000	-11.700	75.000	SREF 2.4210 50.17
(ALC033)	ARC 87-747 DA53C B C M F VI V	10.000	.000	-11.700	55.000	LREF 14.2440 11.00
(ALC040)	ARC 87-747 DA53C B C M F VI V	10.000	.000	-11.700	85.000	BREF 28.1004 11.00
						XMREF 32.3010 11.00
						YMREF 11.7500 11.00
						ZMREF 11.7500 11.00
						SCALE .0300 11.00

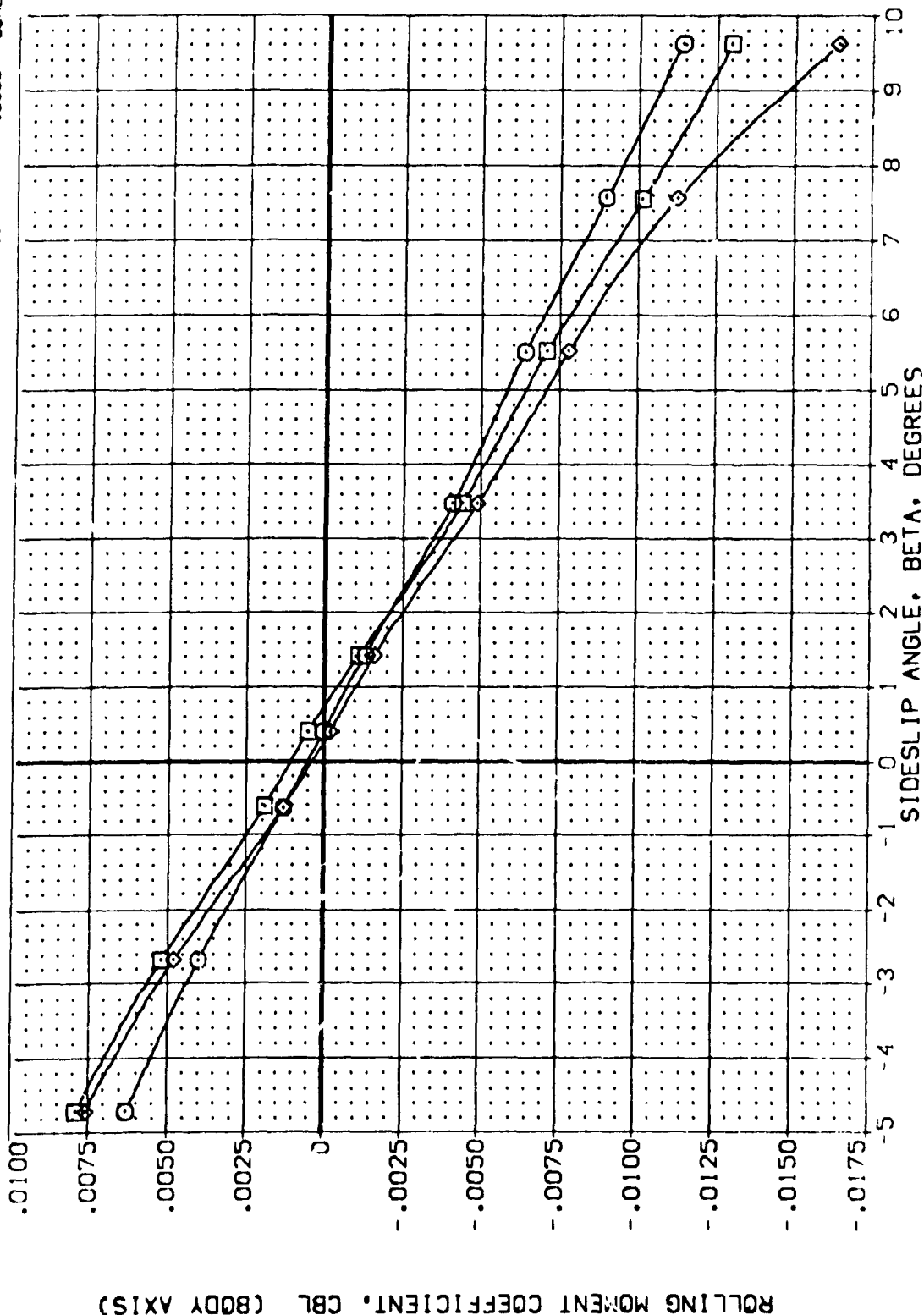


FIG. 25 SPEEDBRAKE EFFECTS

(B)MAC = 3.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPEEDBRAKES    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEEDBRAKES	REFERENCE INFORMATION
(AEL026)	ARC 87-747 DA53C B C M F VI	10.000	.000	-11.700	75.000	SREF 2.4210 SQ.FT.
(AEL033)	ARC 87-747 DA53C B C M F VI	10.000	.000	-11.700	55.000	LREF 14.2440 IN.
(AEL040)	ARC 87-747 DA53C B C M F VI	10.000	.000	-11.700	85.000	BREF 28.1004 IN.
						XMRP 32.3010 IN.
						ZMRP .0000 IN.
						SCALE 11.2500 IN.
						.0300

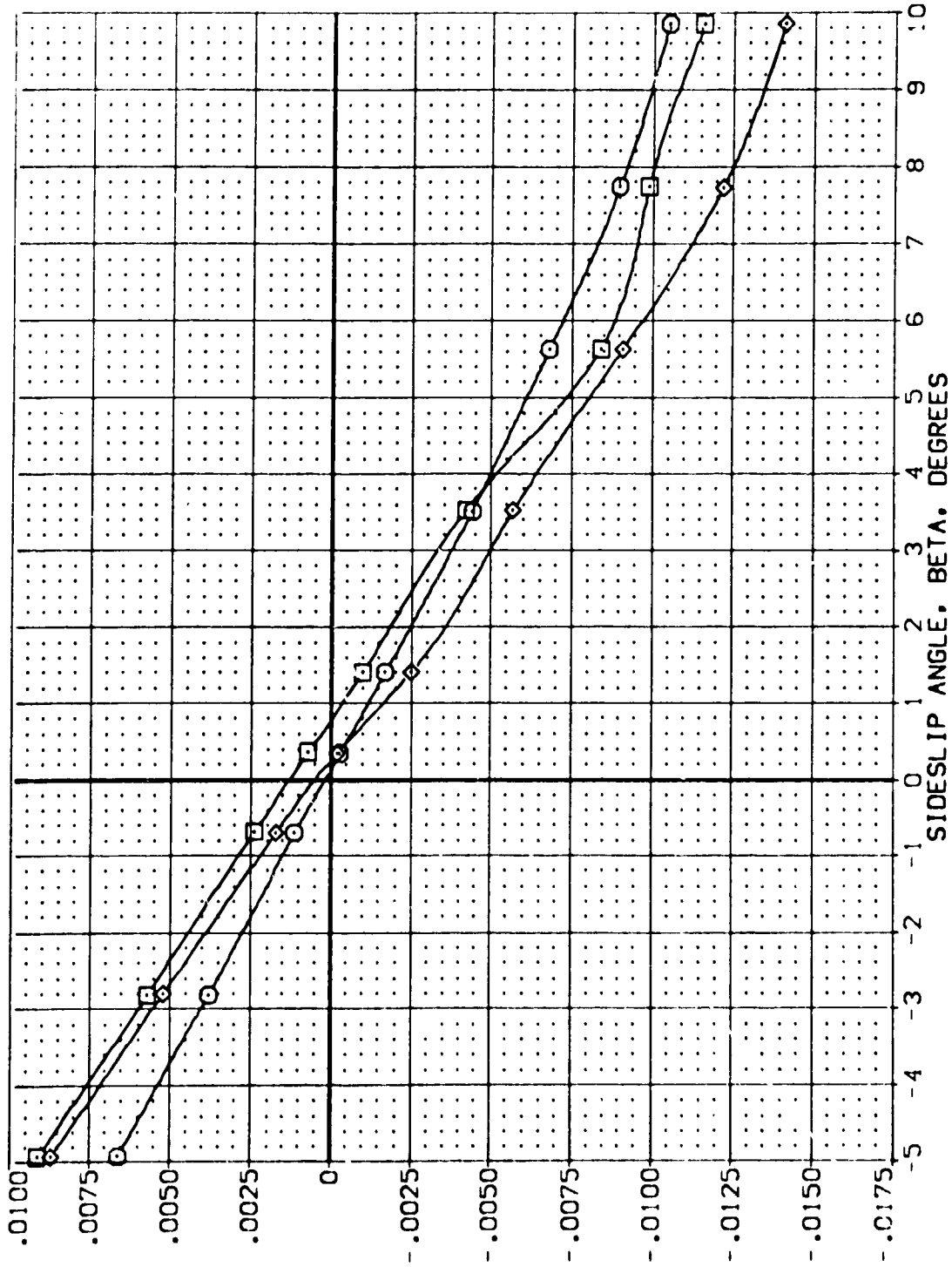


FIG. 25 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOELAP	SPEEDBRK	REFERENCE INFORMATION
(A1-077)	ARC 87-747 BASEC B C M F V	20.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(A1-014)	ARC 87-747 BASEC B C M F V	20.000	.000	-11.700	55.000	LREF 14.2440
(A1-041)	ARC 87-747 CASEC B C M F V	20.000	.000	-11.700	85.000	BREF 78.1001
						YREF 97.7118
						ZREF .0000
						SCALE 11.2500
						SCALE

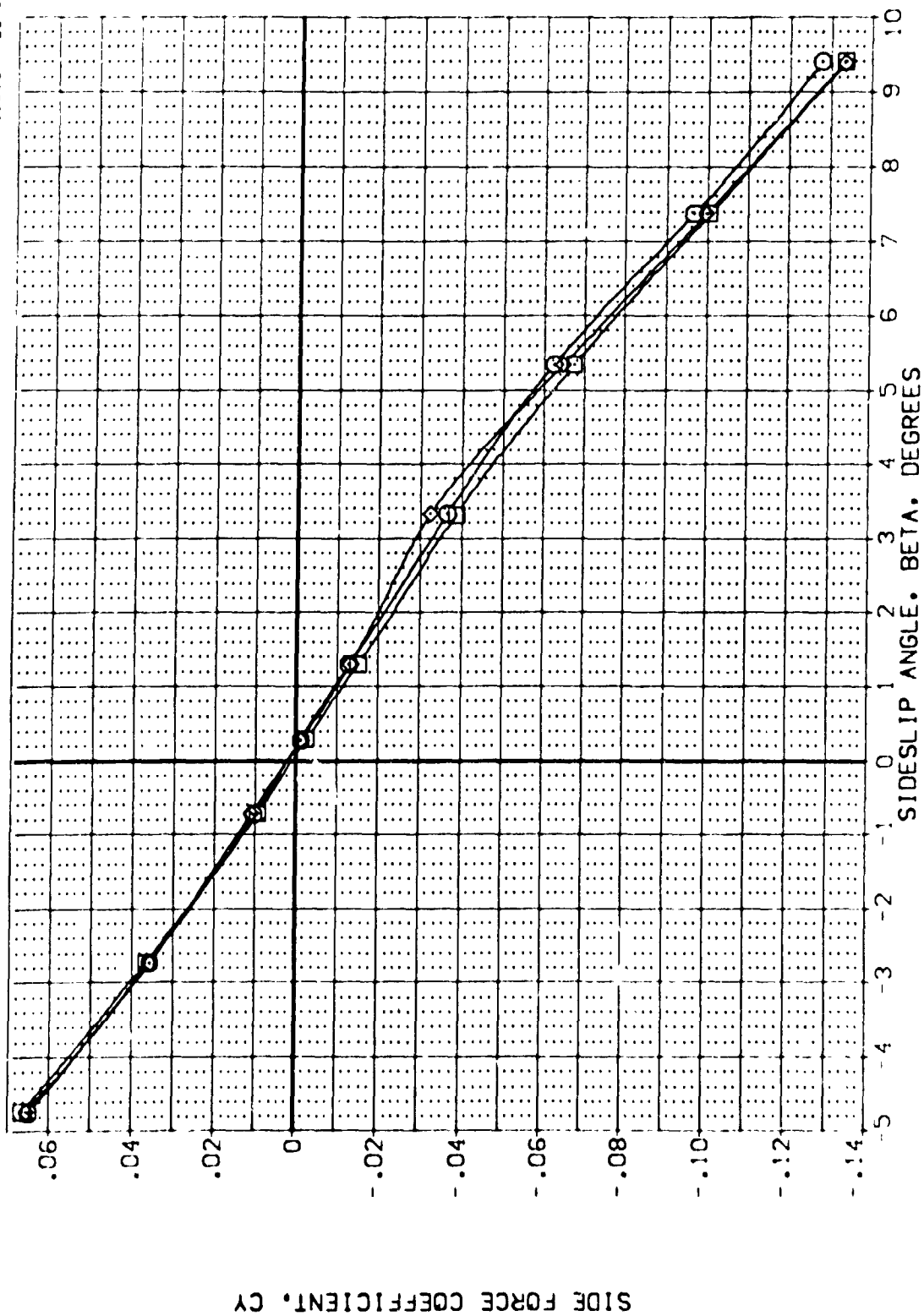


FIG. 25 SPEEDBRAKE EFFECTS

(A1)MA 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(AEL077)	ARC 87-747 OAS3C B C M F VI	20.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(AEL014)	ARC 87-747 OAS3C B C M F VI	20.000	.000	-11.700	55.000	LREF 14.2440
(AEL041)	ARC 87-747 OAS3C B C M F VI	20.000	.000	-11.700	85.000	BREF 78.1004
						XMREF 32.3010
						YMREF 0.0000
						ZMREF 11.7500
						SCALE .0300

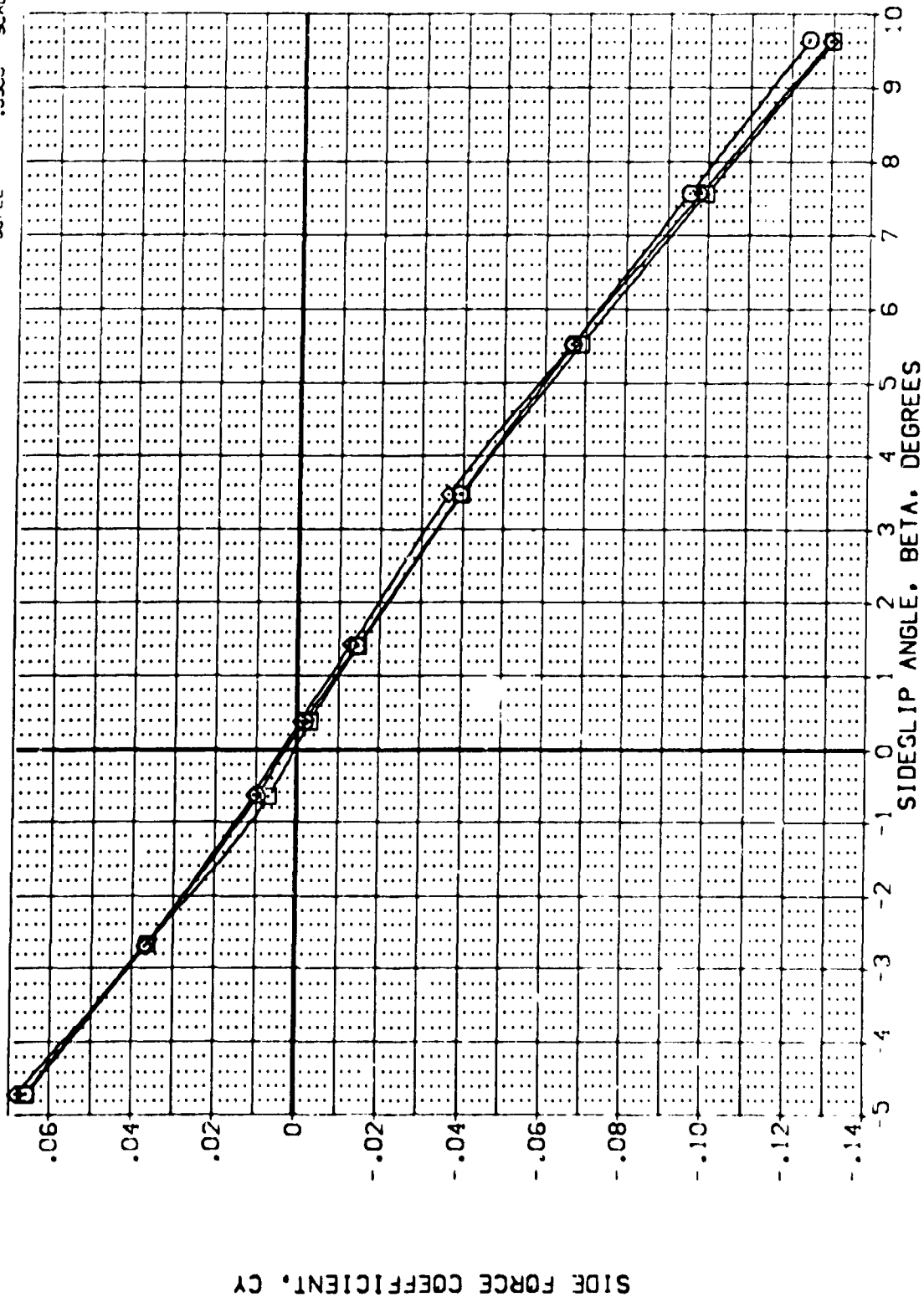


FIG. 25 SPEEDBRAKE EFFECTS  
(3)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
[AL 071]	ARC 87-747 BASIC B C M F V1 V	20.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[AL 074]	ARC 87-747 BASIC B C M F V1 V	20.000	.000	-11.700	55.000	REF 14.2440
[AL 041]	ARC 87-747 BASIC B C M F V1 V	20.000	.000	-11.700	85.000	REF 28.1004
						YREF 32.3000
						ZREF .0000
						YMRD 11.2500
						ZMRD .0000
						SCALE 11.0000

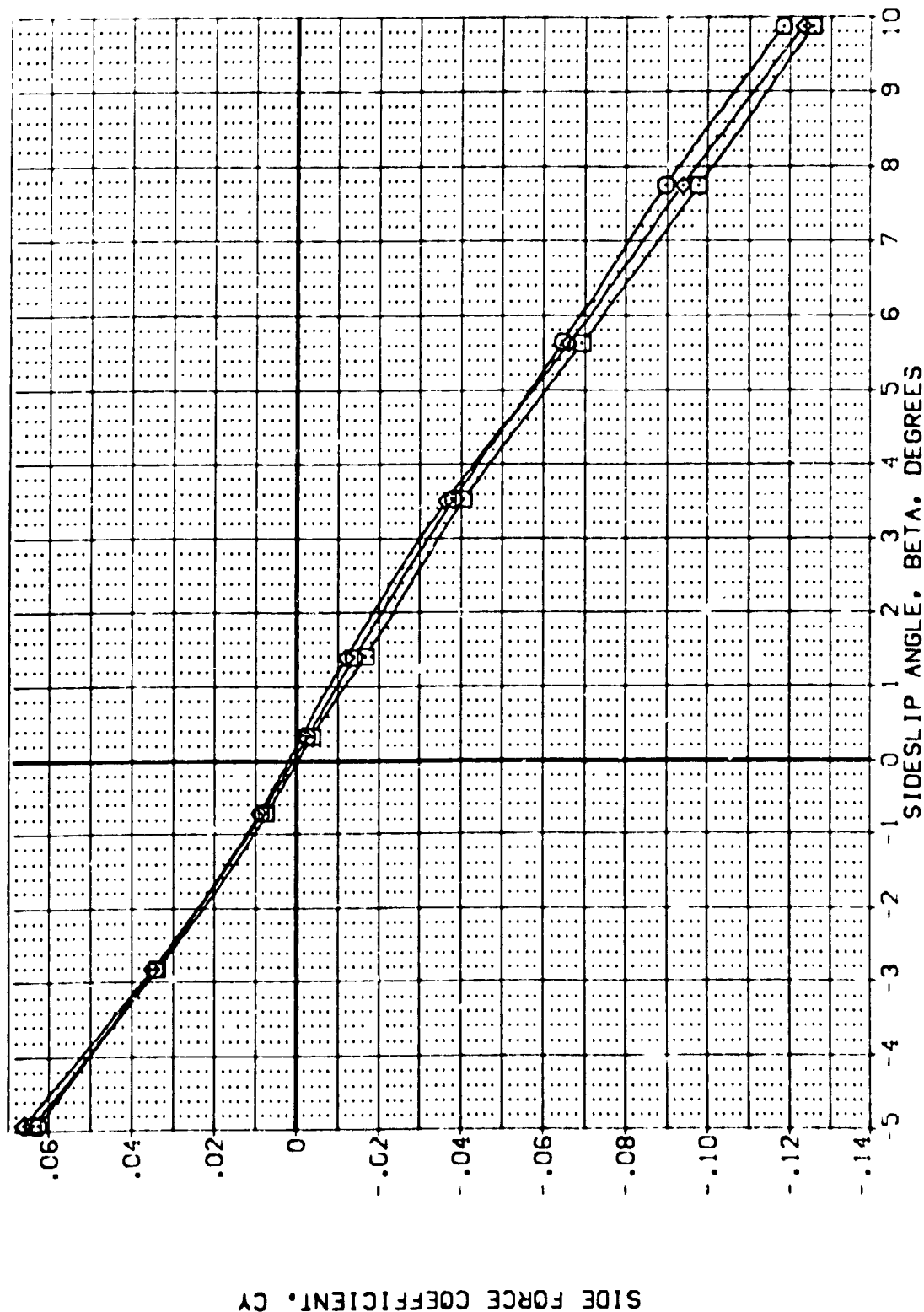


FIG. 25 SPEEDBRAKE EFFECTS

(C)MAC 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[AL077]	ARC 87-747	DA53C	B C M F V	Y	NOM	RV/L
[AL077]	ARC 87-747	DA53C	B C M F V	Y	NOM	RV/L
[AL077]	ARC 87-747	DA53C	B C M F V	Y	NOM	RV/L

ALPHA

20.000	20.000	20.000
20.000	20.000	20.000
20.000	20.000	20.000

RUDER

.000	.000	.000
.000	.000	.000
.000	.000	.000

BOE LAP

11.700	11.700	11.700
11.700	11.700	11.700
11.700	11.700	11.700

SPOBRK

25.000	25.000	25.000
55.000	55.000	55.000
85.000	85.000	85.000

REFERENCE INFORMATION

SRKF	2.4210	SC.FT.
LR.F	14.2440	
BR.F	28.1004	
YMRP	37.3010	
ZMRP	11.2500	
SCALE	11.2500	SCALE

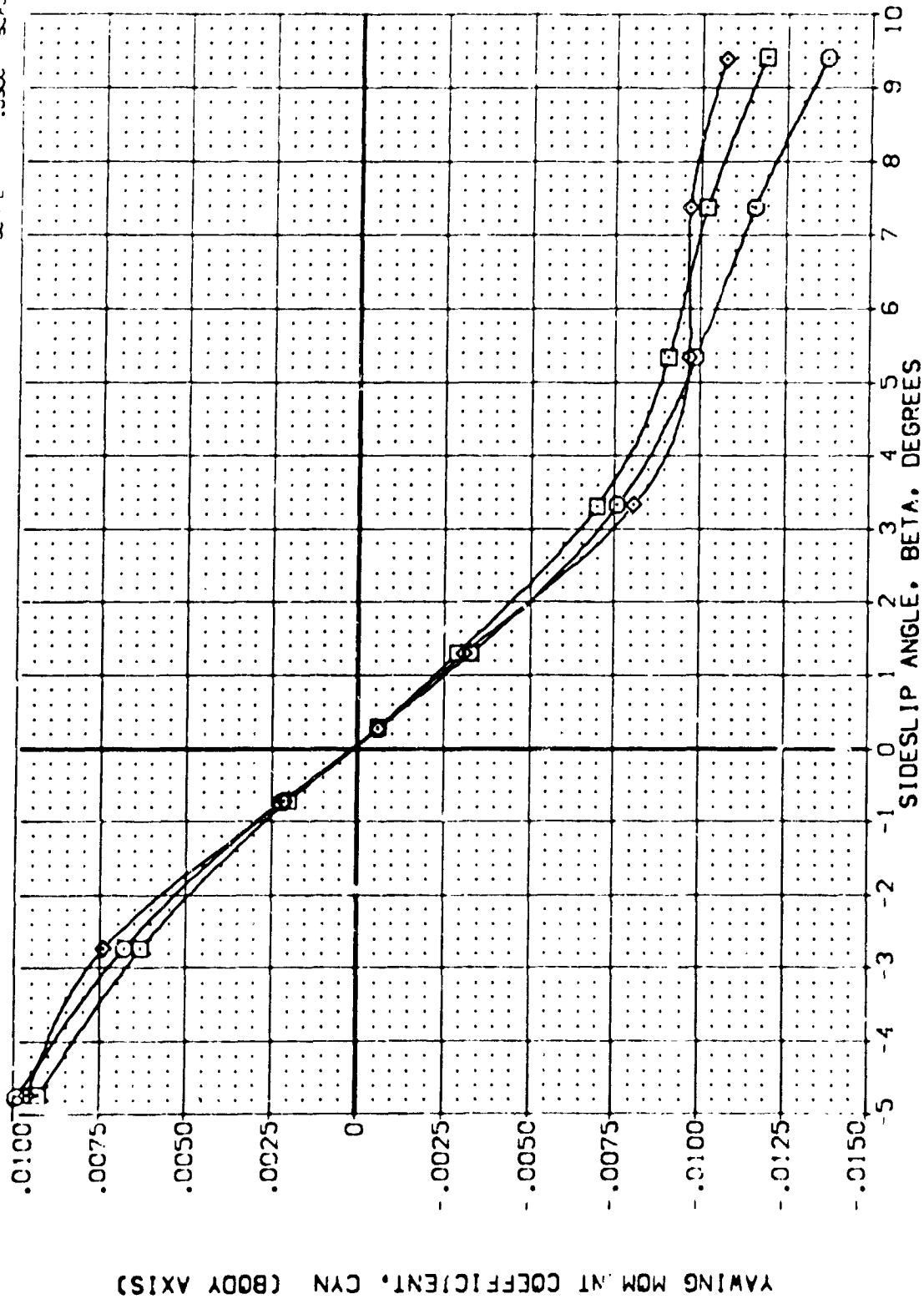


FIG. 25 SPEEDBRAKE EFFECTS

(A) MAC = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	EDFLAP	SPOBRN	REFERENCE INFORMATION
AL-0271	○	ARC 87-747 BASIC B C M F V	20.000	.000	-11.700	75.000	SREF 2.4210
AL-0344	○	ARC 87-747 BASIC B C M F V	20.000	.000	-11.700	55.000	LREF 14.2440
AL-0341	◇	ARC 87-747 BASIC B C M F V	20.000	.000	-11.700	85.000	YREF 32.3010
							YREF 11.2500
							SCALE 0.000
							SCALE 0.000

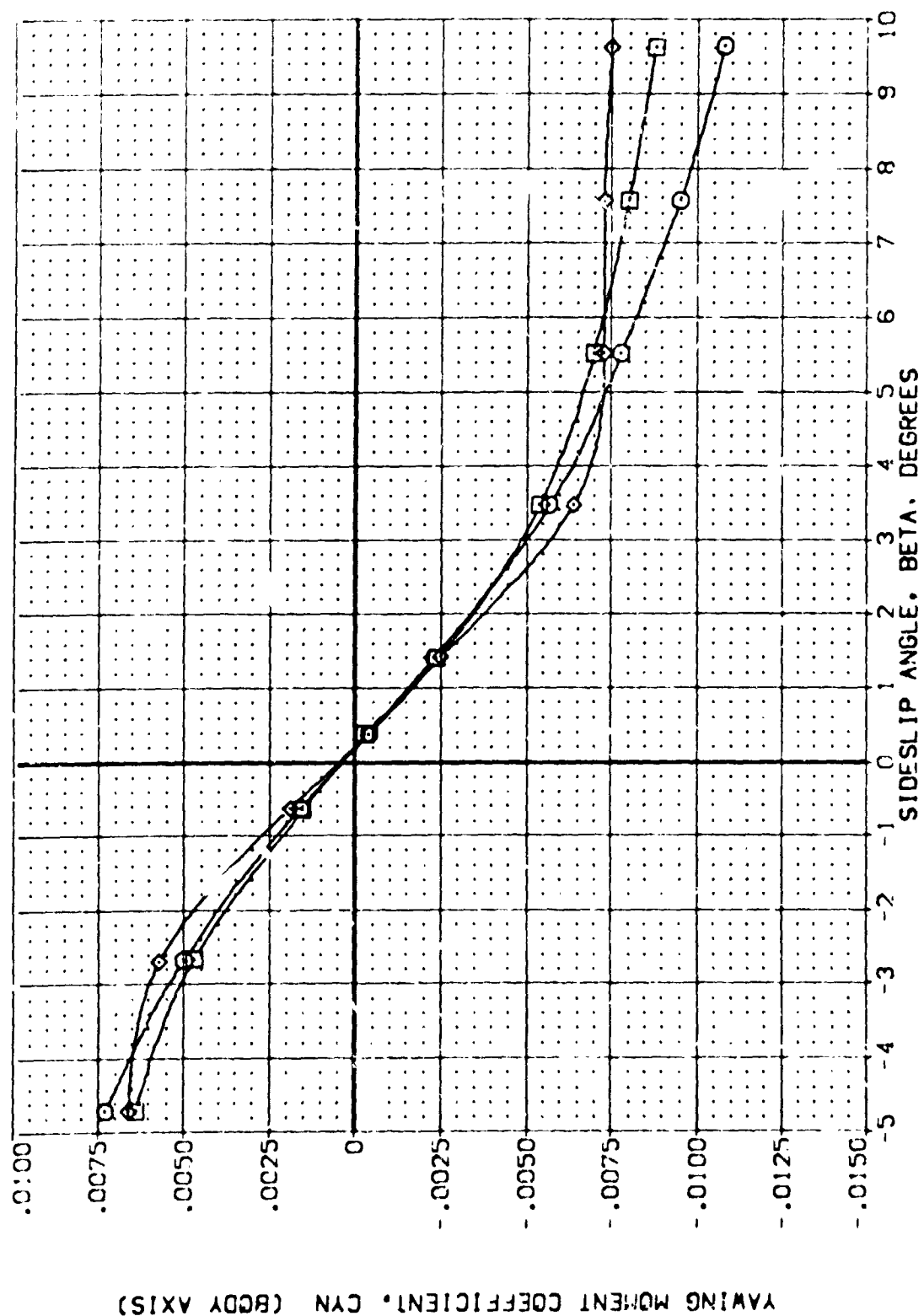


FIG. 25 SPEEDBRAKE EFFECTS

(B) MAC = 3.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(AEL027)	ARC 87-747 DAS3C B C M F V	20.000	.000	-11.700	75.000	SREF 2.4210 SQ.FT.
(AEL041)	ARC 87-747 DAS3C B C M F V	20.000	.000	-11.700	55.000	LREF 14.2440 IN.
(AEL041)	ARC 87-747 DAS3C B C M F V	20.000	.000	-11.700	85.000	BREF 28.1004 IN.
						XMRD 37.3010 IN.
						YMRD .0000 IN.
						ZMRD 11.2500 IN.
						SCALE .0300

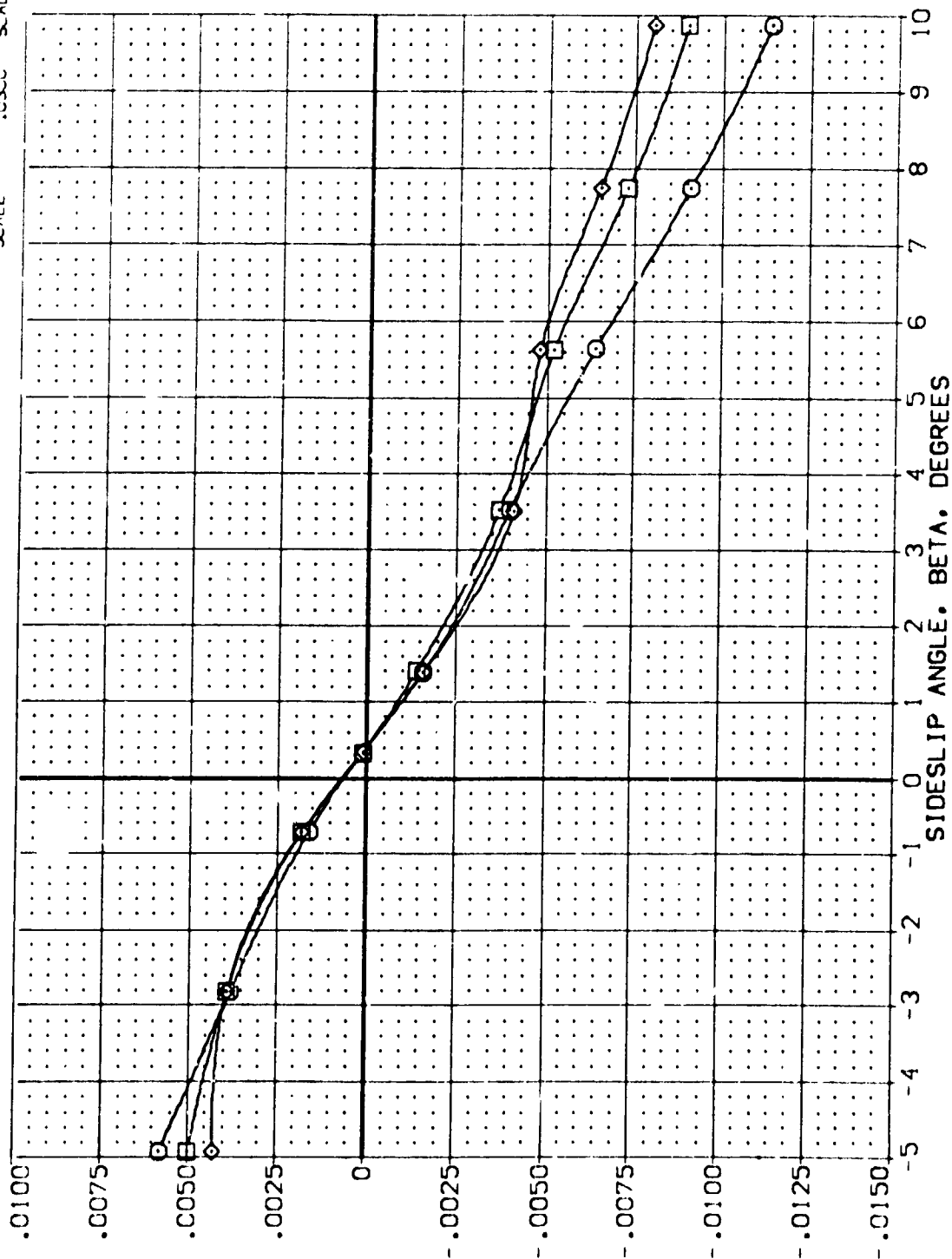


FIG. 25 SPEEDBRAKE EFFECTS

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
[AEL027]	ARC 87-747 OAS3C B C M F V	20.000	.000	-11.700	75.000	SREF 2.4210
[AEL014]	ARC 87-747 OAS3C B C M F V	20.000	.000	-11.700	55.000	LREF 14.2440
[AEL014]	ARC 87-747 OAS3C B C M F V	20.000	.000	-11.700	85.000	BRFF 28.1000
						XMPP 32.3010
						YMPP 11.0000
						ZMPP 11.3500
						SCALE .0300

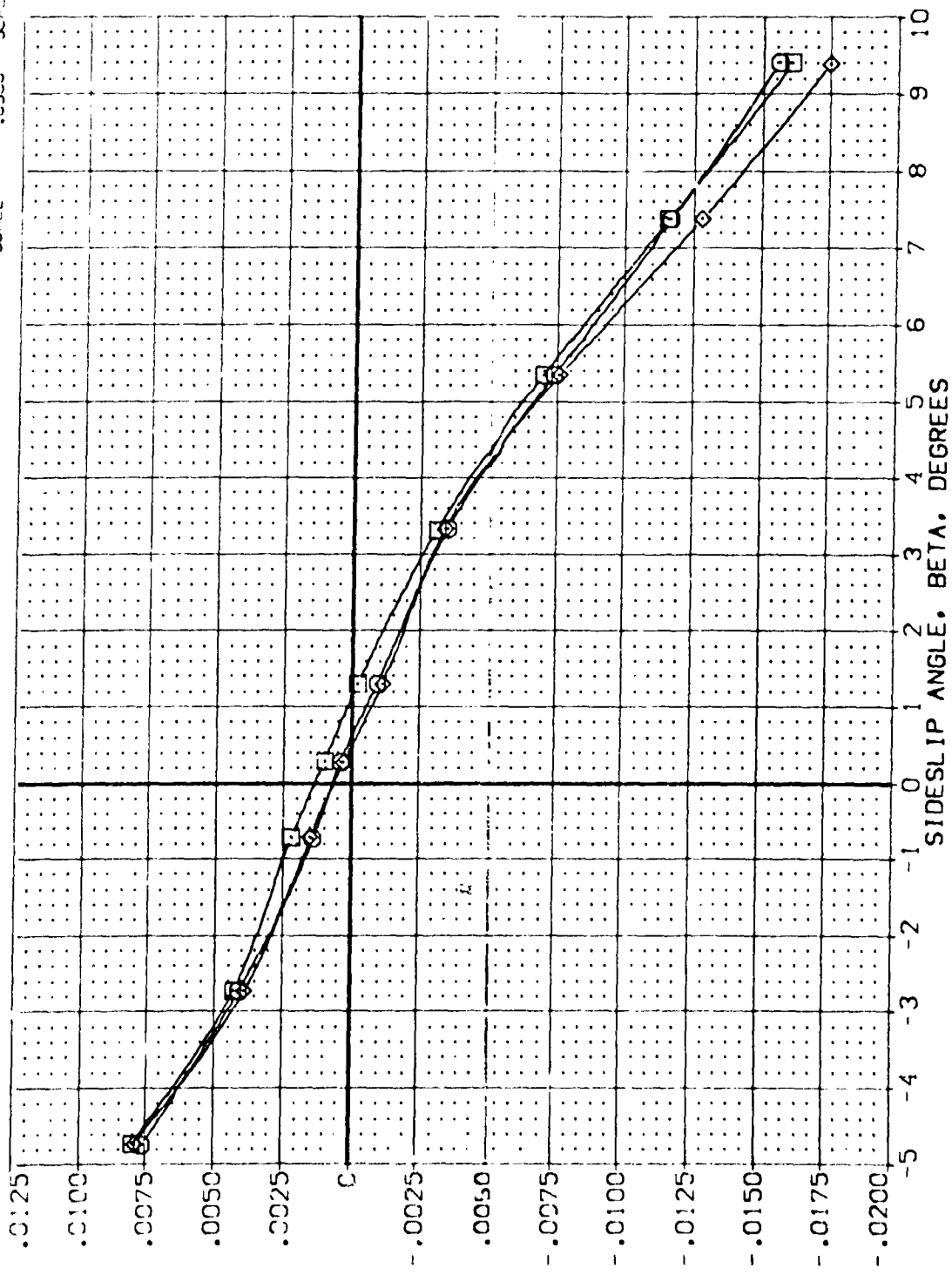


FIG. 25 SPEEDBRAKE EFFECTS

(A) MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(AFLO77)	ARC 87-747 QAS3C B C M F V	20.000	.000	-11.700	25.000	SREF 2.4210 SC.FT.
(AFLO77)	ARC 87-747 QAS3C B C M F V	20.000	.000	-11.700	55.000	BREF 14.2440
(AFLO77)	ARC 87-747 QAS3C B C M F V	20.000	.000	-11.700	65.000	BREF 28.1000
						XMRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

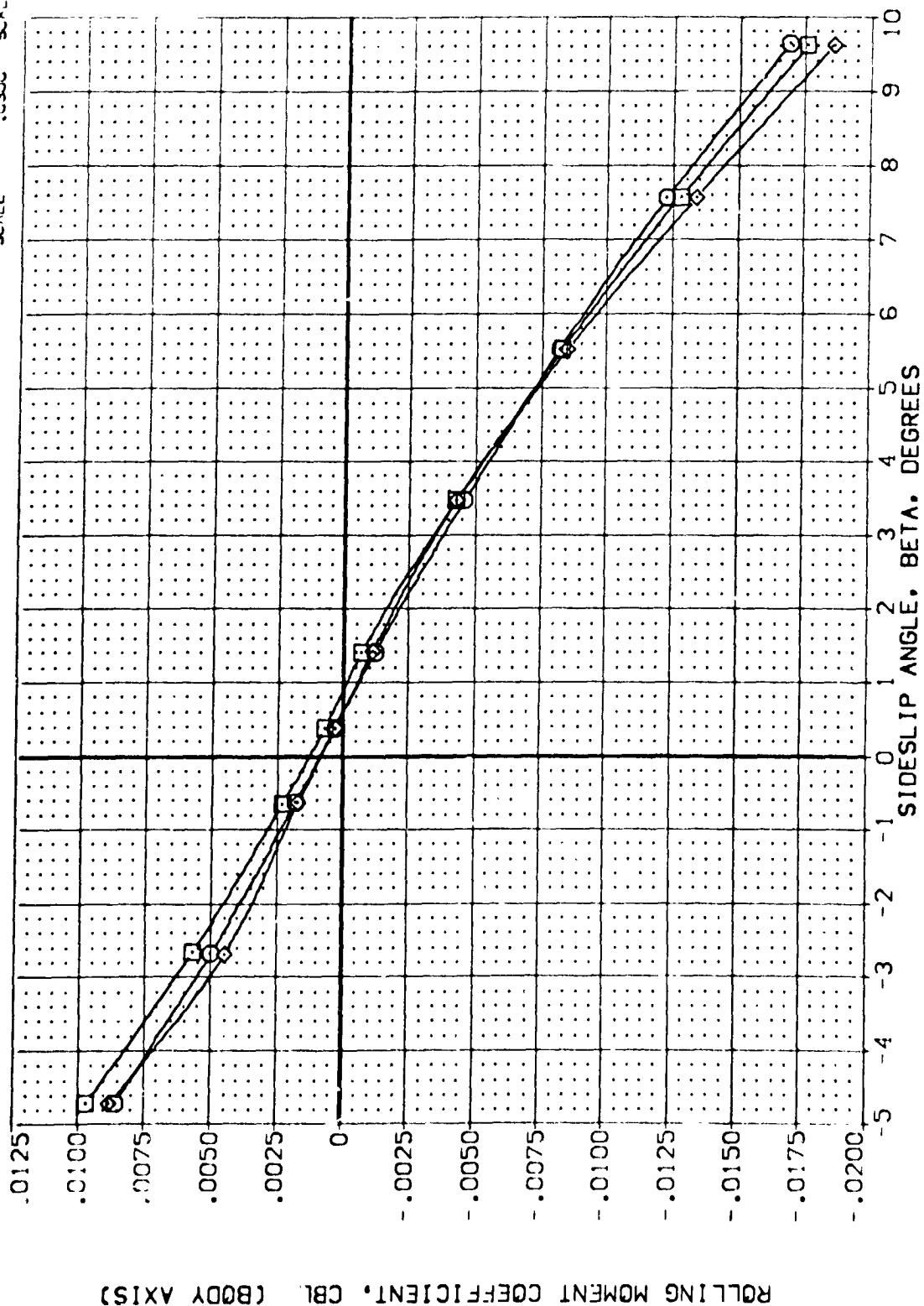
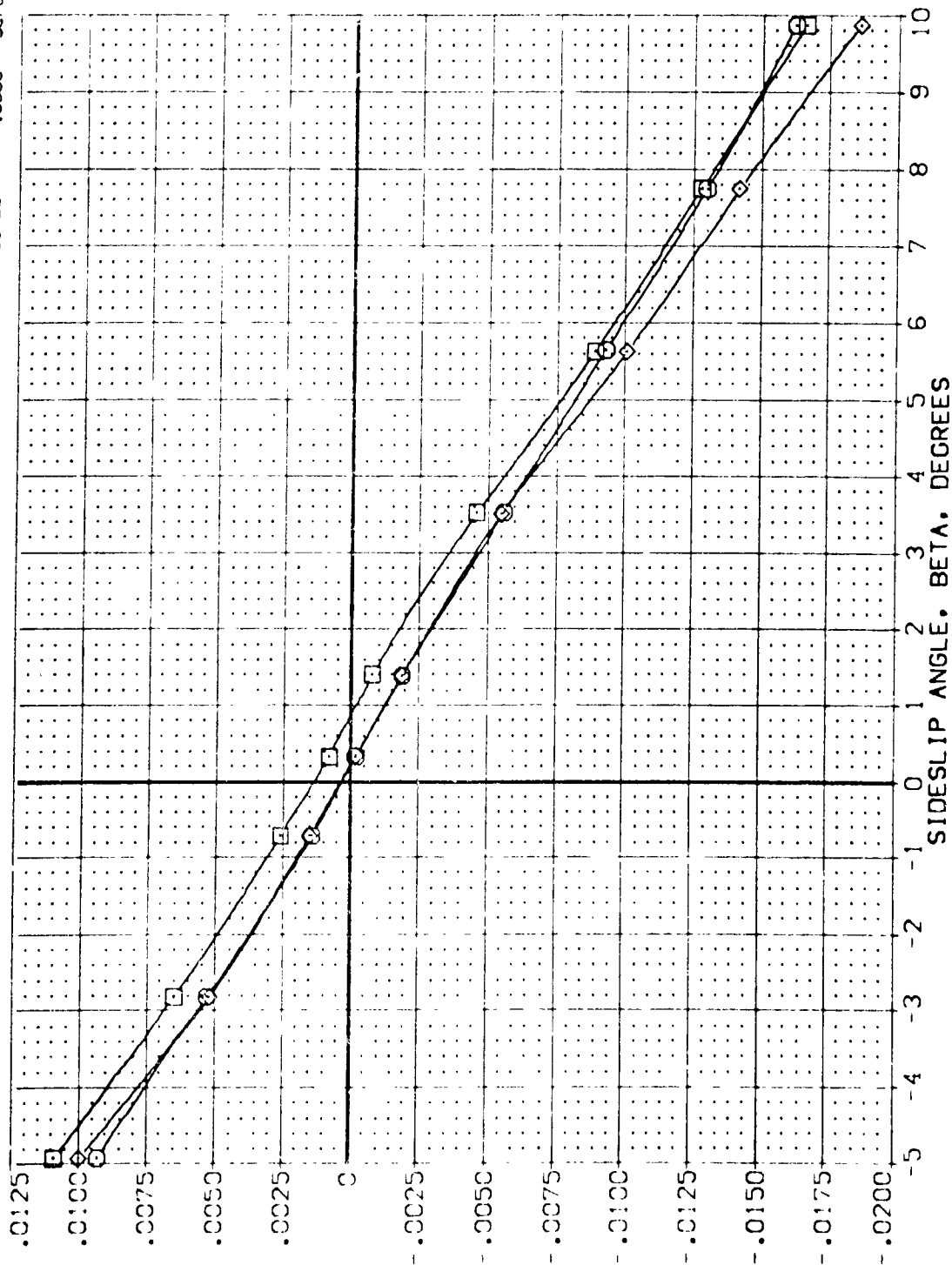


FIG. 25 SPEEDBRAKE EFFECTS

(B) VACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(AEL027)	ARC 87-747 OAS3C B C M F V	20.000	.000	-11.700	25.000	SPKF 2.4210 SC.FT.
(AEL014)	ARC 87-747 OAS3C B C M F V	20.000	.000	-11.700	55.000	LR.F 14.2440
(AEL041)	ARC 87-747 OAS3C B C M F V	20.000	.000	-11.700	85.000	BR.F 28.1004
						XRPP 32.3013
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300



ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

FIG. 25 SPEEDBRAKE EFFECTS

(C)MAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOFLAP	ELEVON	REFERENCE INFORMATION
{VEL012}	ARC 87-747 CAS3C B C M F V1 V	.000	.000	-11.700	.000	SPEED 2.4210 SQ.FT.
{VEL013}	ARC 87-747 CAS3C B C M F V1 V	10.000	.000	-11.700	.000	LIFT 14.2440
{VEL014}	ARC 87-747 CAS3C B C M F V1 V	20.000	.000	-11.700	.000	DRAG 28.1000
						YMRP 32.3010
						ZMRP .0000
						SCALE 11.2500
						SCALE

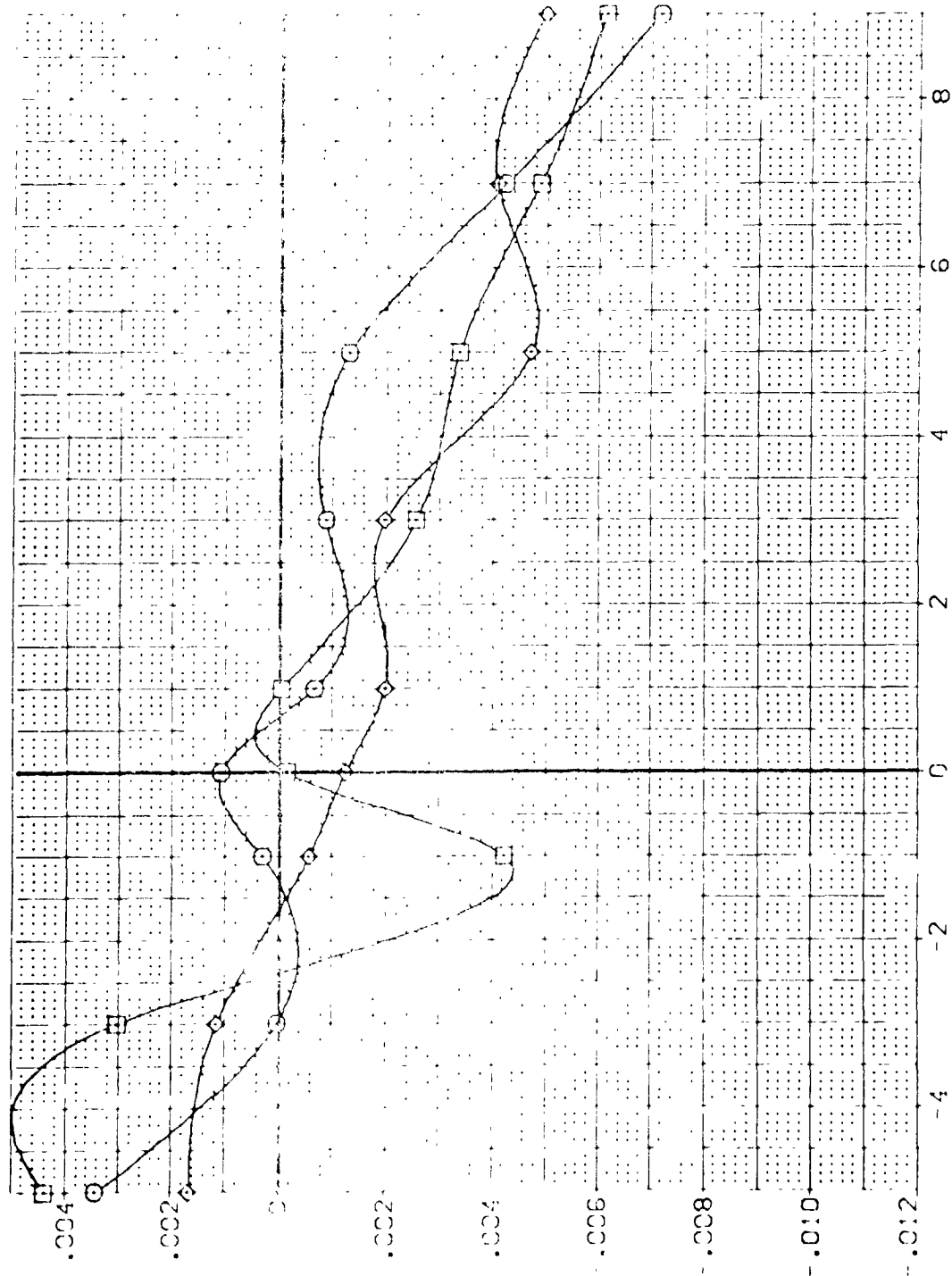
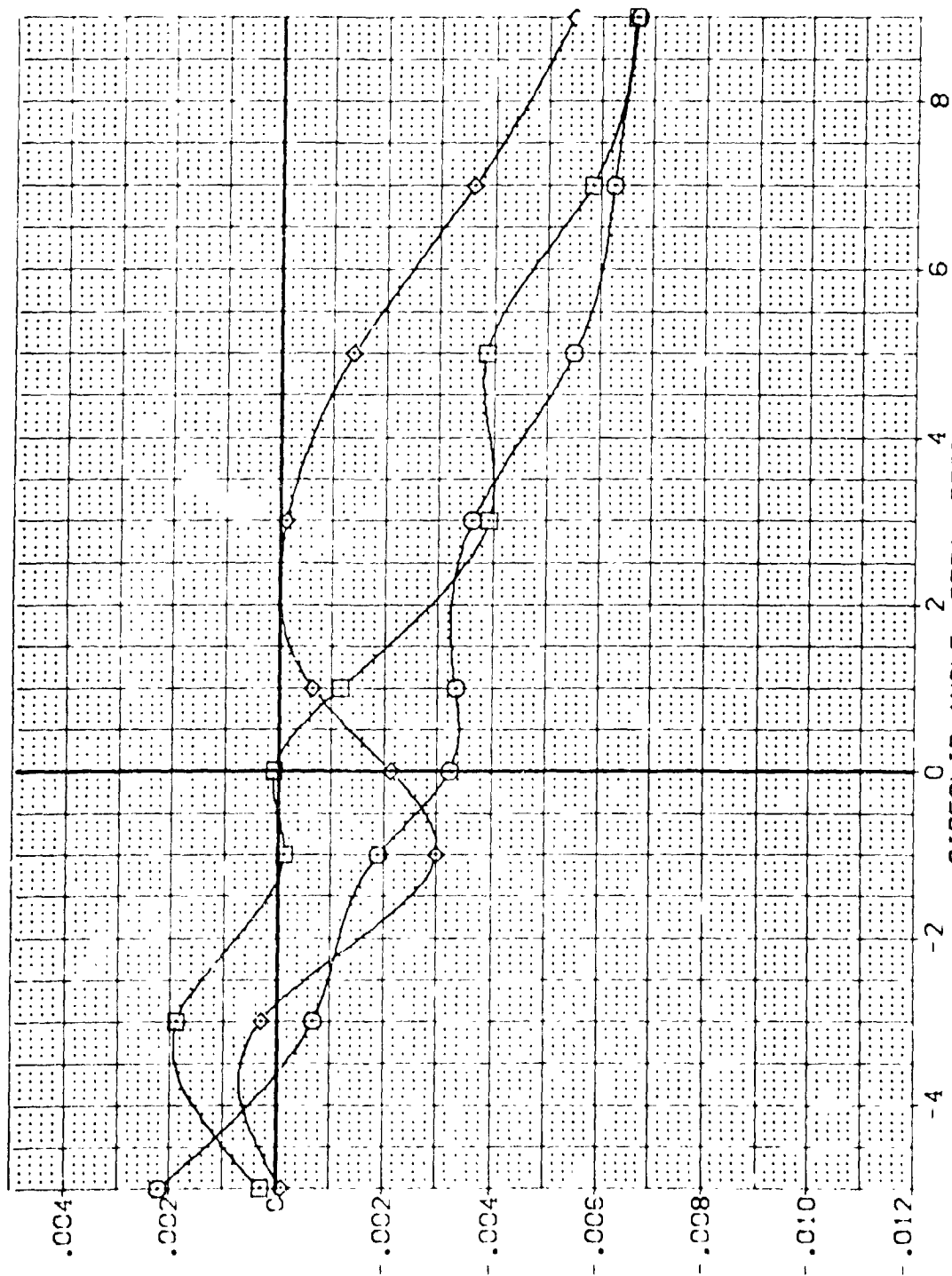


FIG. 26 INCREMENTAL SPEEDBRAKE EFFECTS (DSB= 55 - 25)

(A) MAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
(F,012)	ARC 87-747 BAS3C B C M F VI V	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
(V,013)	ARC 87-747 CAS3C B C M F VI V	10.000	.000	-11.700	.000	LREF 14.2440 IN.
(V,014)	ARC 87-747 CAS3C B C M F VI V	20.000	.000	-11.700	.000	BREF 28.1004 IN.
						XREF 37.3010 IN.
						YREF .0000 IN.
						ZREF 11.2500 IN.
						SCALE .0300

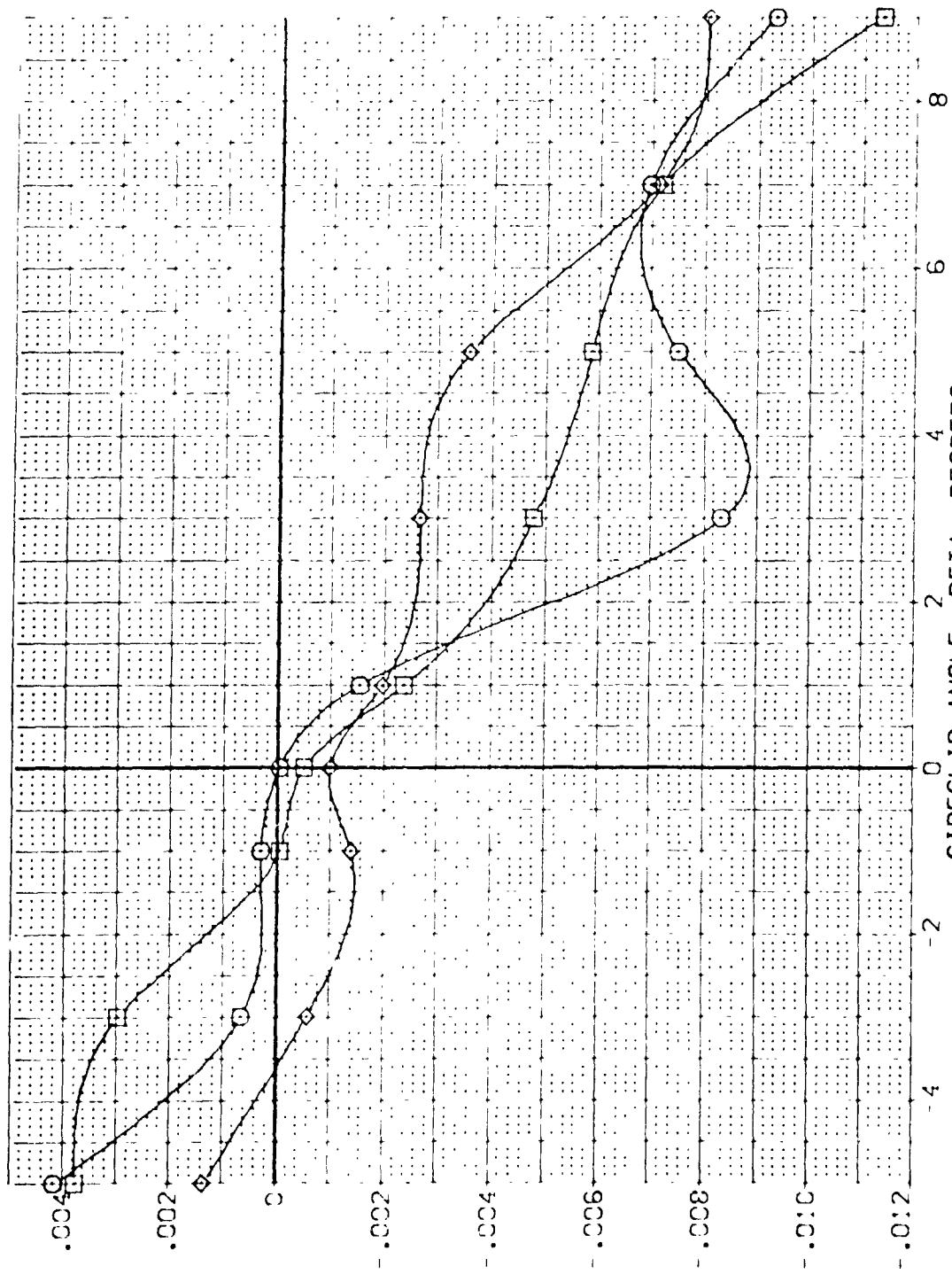


INCREMENTAL SIDE FORCE COEFFICIENT, DCY

FIG. 26 INCREMENTAL SPEEDBRAKE EFFECTS (DSB= 55 - 25)

(3)MAC= 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOFLAP	ELEVON	REFERENCE INFORMATION
[1] 012	ARC 87-747 0A53C B C M F V1 V	.000	.000	-11.700	.000	SREF 2.4210
[2] 013	ARC 87-747 0A53C B C M F V1 V	10.000	.000	-11.700	.000	LREF 14.2440
[3] 014	ARC 87-747 0A53C B C M F V1 V	20.000	.000	-11.700	.000	BREF 28.0000
						YREF 32.3010
						ZREF .0000
						SCALE 11.2500
						SCALE .0000



INCREMENTAL SIDE FORCE COEFFICIENT, DCY

SIDESLIP ANGLE, BETA, DEGREES

FIG. 26 INCREMENTAL SPEEDBRAKE EFFECTS (OSB= 55 - 75)

COMAC = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOFLAP	ELEVON	REFERENCE INFORMATION
(VEL012)	ARC 87-747 CAS3C B C M F V1 V	.000	.000	-11.700	.000	SREF 2.4210 SC.FT.
(VEL013)	ARC 87-747 CAS3C B C M F V1 V	10.000	.000	-11.700	.000	LREF 14.2440
(VEL014)	ARC 87-747 CAS3C B C M F V1 V	20.000	.000	-11.700	.000	BREF 28.1004
						YREF 32.3010
						ZREF 11.2500
						SCALE .0300

INCREMENTAL YAWING MOMENT COEFFICIENT, NCYN

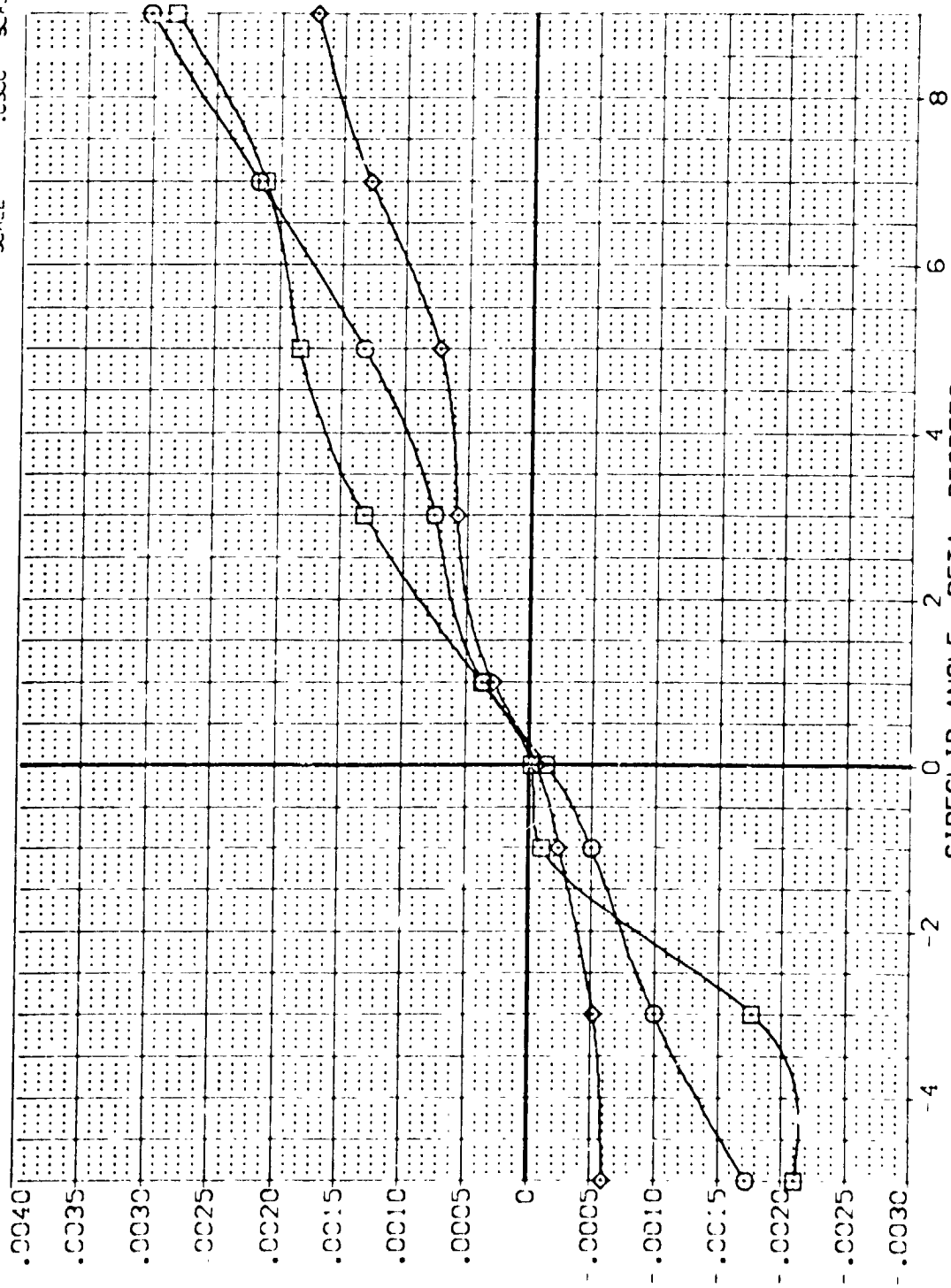
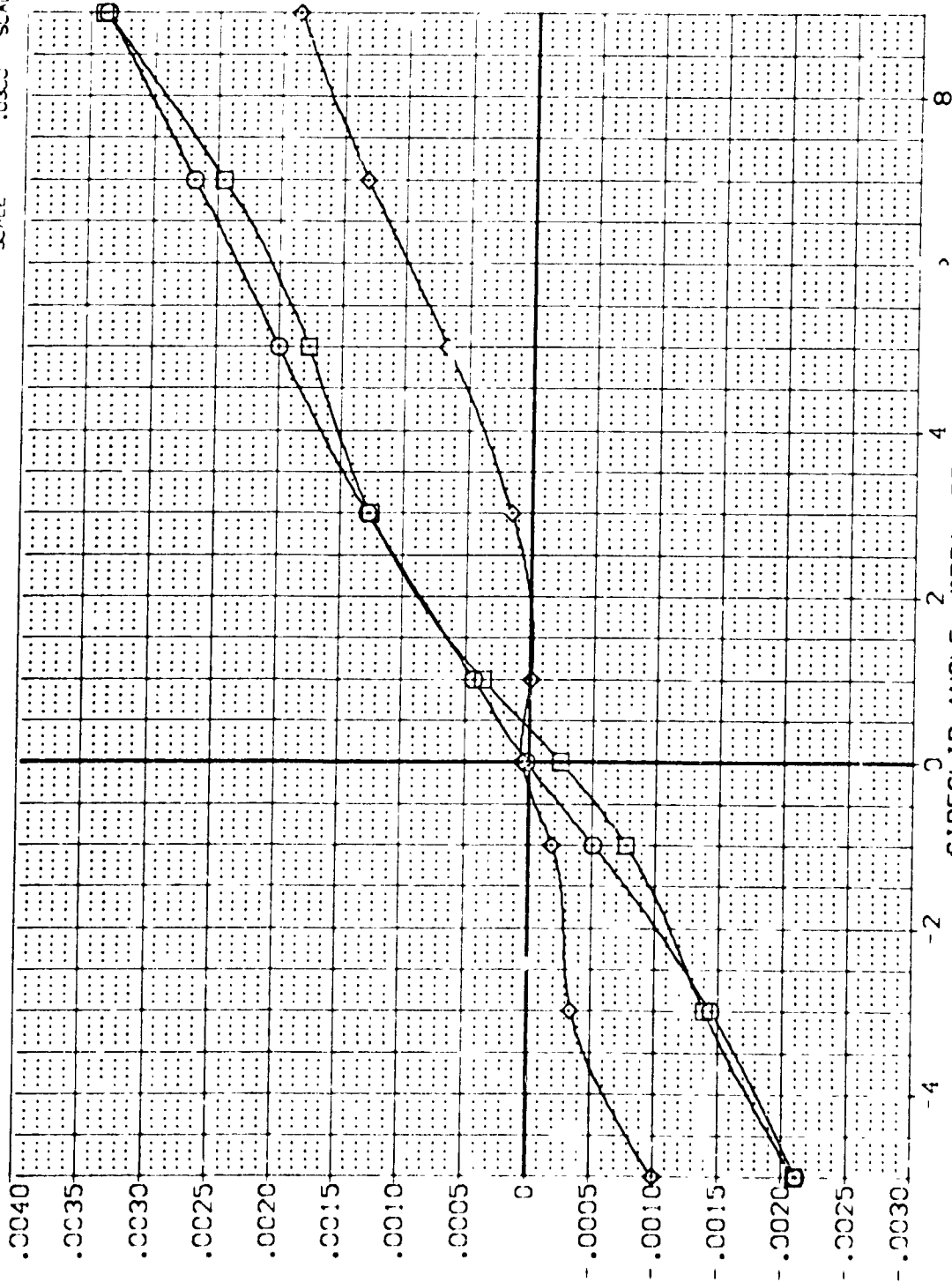


FIG. 26 INCREMENTAL SPEEDBRAKE EFFECTS (OSB= 55 - 25)

CASVAC 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDF LAP	ELEVON	REFERENCE INFORMATION
(VE-012)	ARC 87-747 DASSC B C M F V I V	.000	.000	-11.700	.000	SREF 2.4210 SC.FT.
(VE-013)	ARC 87-747 DASSC B C M F V I V	10.000	.000	-11.700	.000	LREF 14.2440
(VE-014)	ARC 87-747 DASSC B C M F V I V	20.000	.000	-11.700	.000	BREF 28.1004
						YMRP 32.3010
						ZMRP .0000
						SCALE 11.2500
						SCALE .0300



INCREMENTAL YAWING MOMENT COEFFICIENT, DCYN

SIDESLIP ANGLE, BETA, DEGREES

FIG. 26 INCREMENTAL SPEEDBRAKE EFFECTS (DSB= 55 - 25)

(3)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
[VE 0.12]	ARC 87-747 QAS3C B C M F V	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
[VE 0.13]	ARC 87-747 QAS3C B C M F V	10.000	.000	-11.700	.000	LREF 14.2440
[VE 0.14]	ARC 87-747 QAS3C B C M F V	20.000	.000	-11.700	.000	BREF 28.1004
						XMRD 32.3010
						YMRD .0000
						ZMRD 11.2500
						SCALE .0300

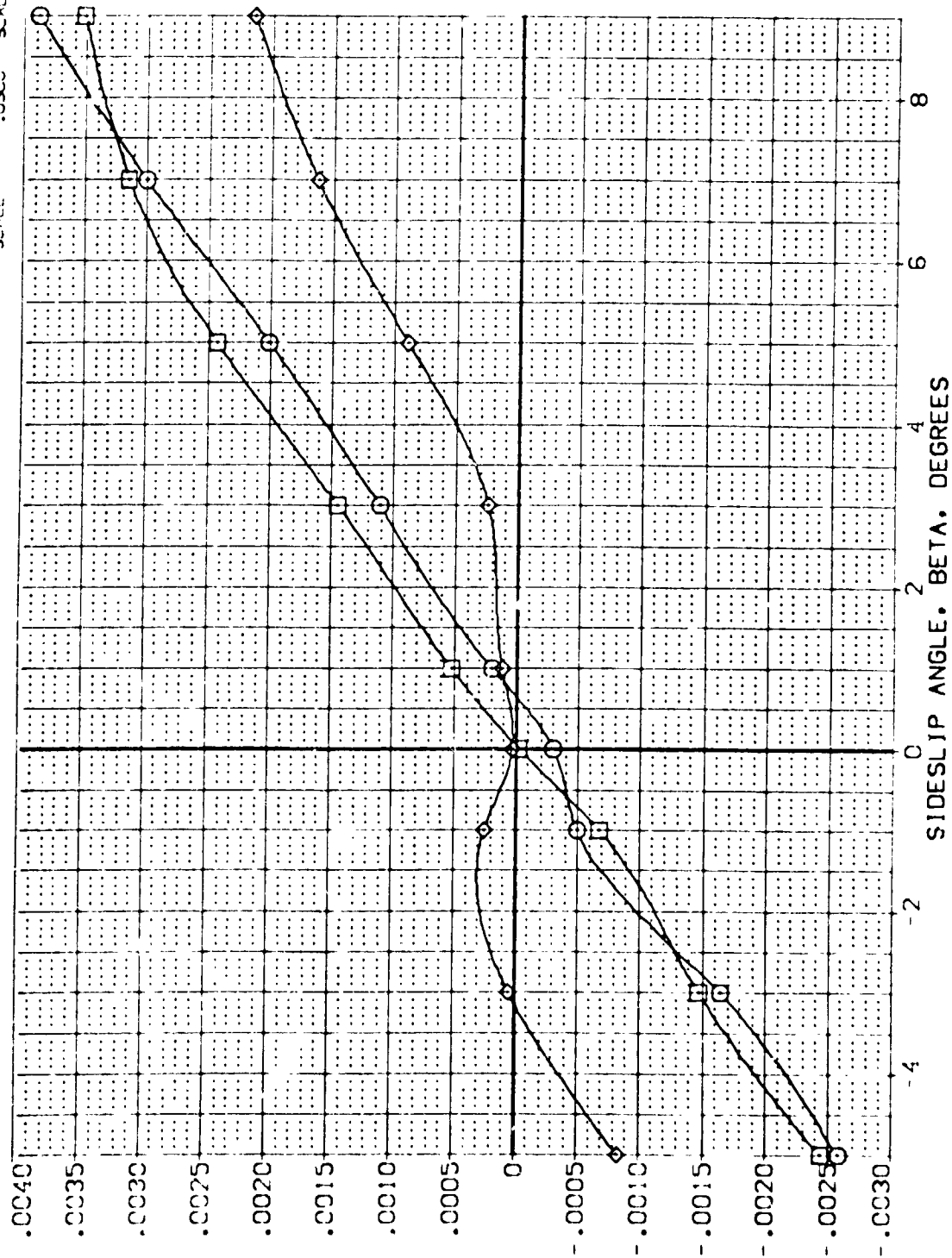
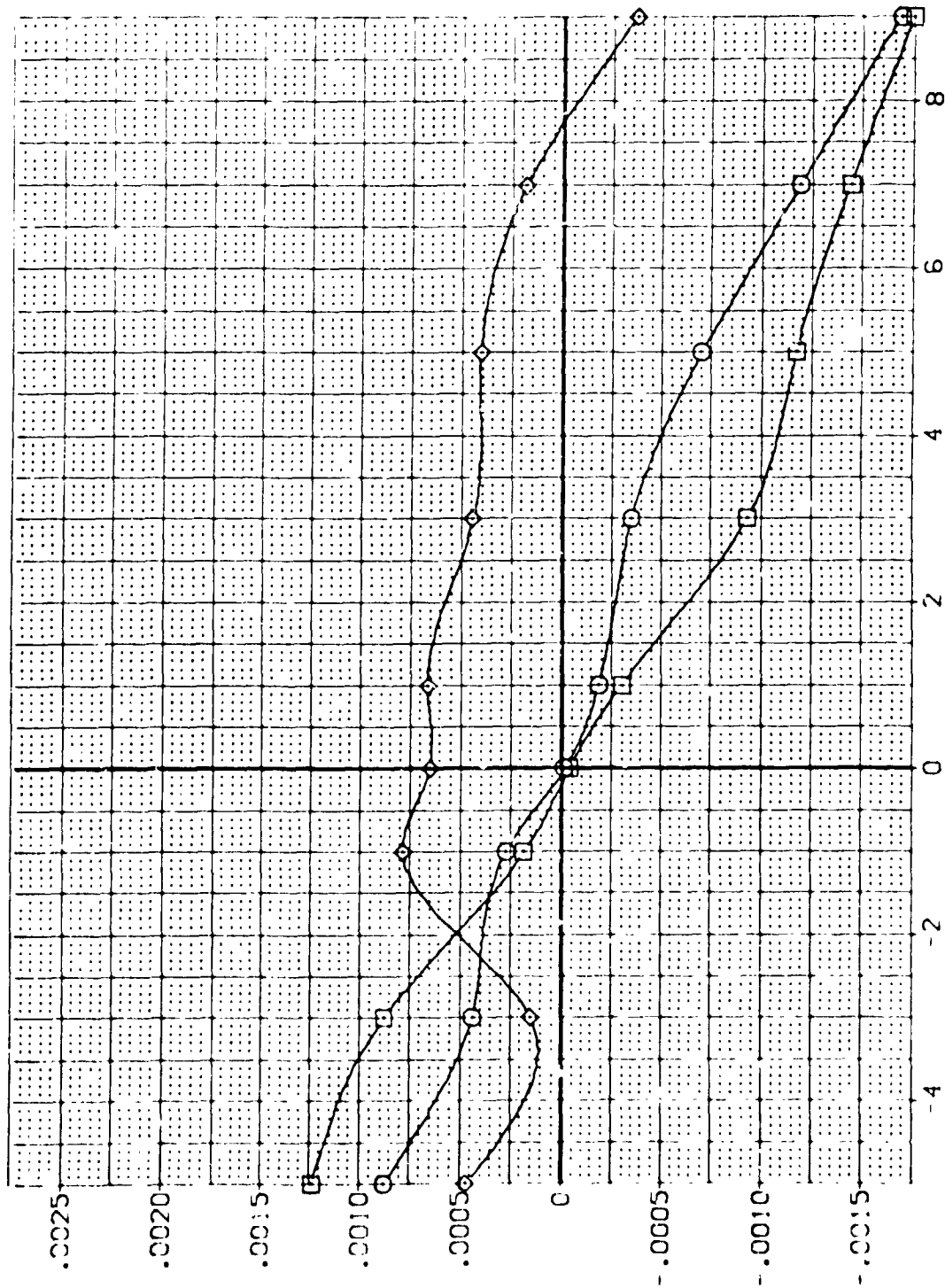


FIG. 26 INCREMENTAL SPEEDBRAKE EFFECTS (DSB= 55 - 25)

(C) MAG. = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	EOFLAP	ELEVON	REFERENCE INFORMATION
[VE-012]	ARC 87-747 OAS3C B C M F VI V	0.000	0.000	-11.700	0.000	SREF 2.4210 SQ.FT.
[VE-013]	ARC 87-747 OAS3C B C M F VI V	10.000	0.000	-11.700	0.000	LREF 14.2440
[VE-014]	ARC 87-747 OAS3C B C M F VI V	20.000	0.000	-11.700	0.000	EREF 28.1004
						YREF 37.3010
						ZREF 0.0000
						YPRP 11.7500
						SCALE 0.000



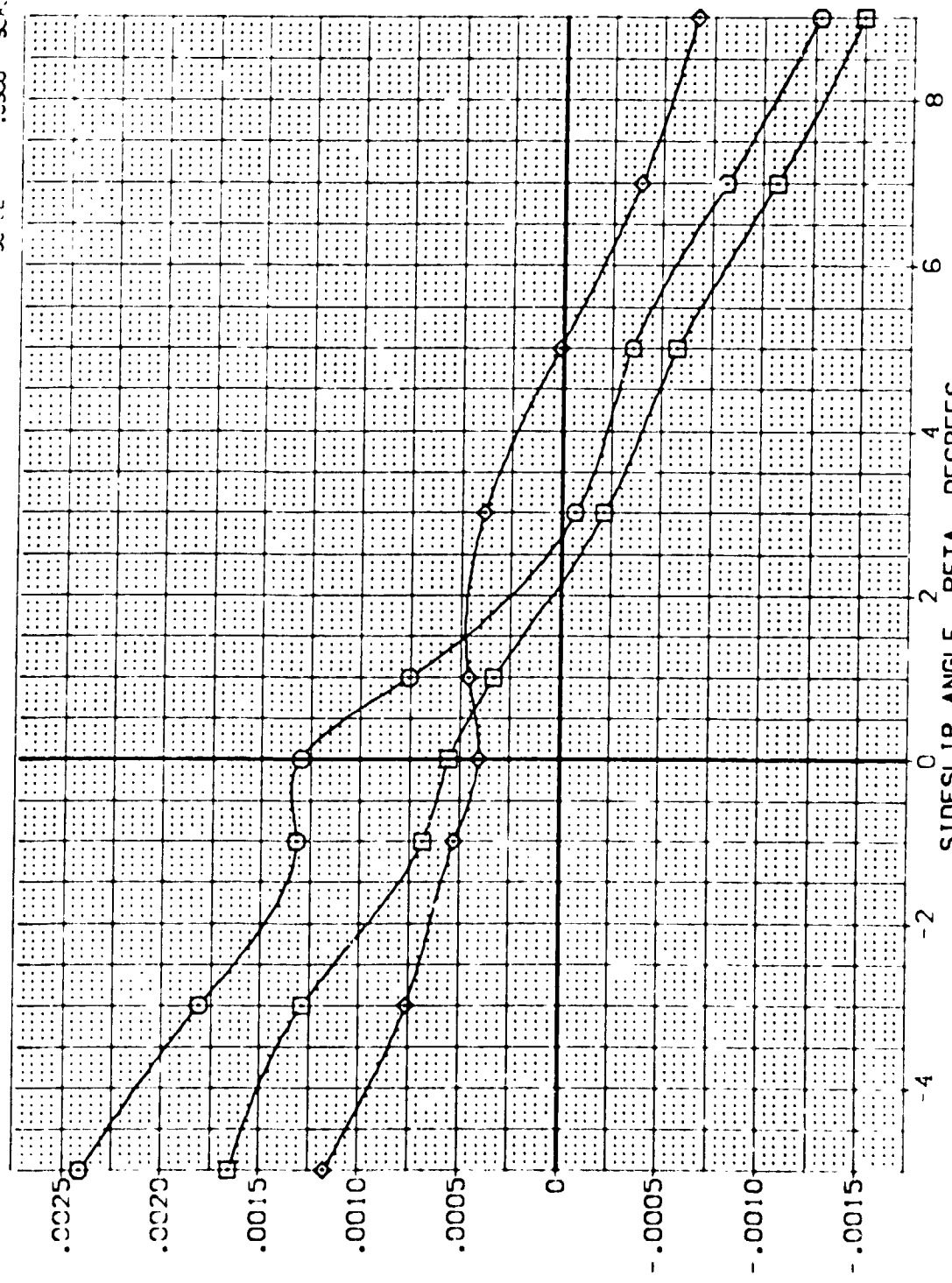
INCREMENTAL ROLLING MOMENT COEFFICIENT, DCBL

SIDELIP ANGLE, BETA, DEGREES

FIG. 26 INCREMENTAL SPEEDBRAKE EFFECTS (DSB= 55 - 25)

(A) VAC... 2.50

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA	RUDDER	BOF LAP	ELEVON	REFERENCE INFORMATION
(VLO:012)	□	ARC 87-747	DAS3C B C M F V I V	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
(VLO:013)	□	ARC 87-747	DAS3C B C M F V I V	10.000	.000	-11.700	.000	REF 14.2440
(VLO:014)	◇	ARC 87-747	DAS3C B C M F V I V	20.000	.000	-11.700	.000	REF 28.1004
								REF 32.3010
								REF .0000
								REF 11.2500
								SCALE .0300



INCREMENTAL ROLLING MOMENT COEFFICIENT, DCBL

FIG. 26 INCREMENTAL SPEEDBRAKE EFFECTS (OSB= 55 - 25)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
1 VEL 012	ARC 87-747 BASIC B C M F V1 V	.000	.000	-11.700	.000	SREF 2.4210 SC.F.T.
2 VEL 013	ARC 87-747 BASIC B C M F V1 V	10.000	.000	-11.700	.000	BREF 14.2440
3 VEL 014	ARC 87-747 BASIC B C M F V1 V	20.000	.000	-11.700	.000	BREF 28.1004
						YREF 32.3010
						ZREF .0000
						YREF 11.2500
						ZREF .0300
						SCALE

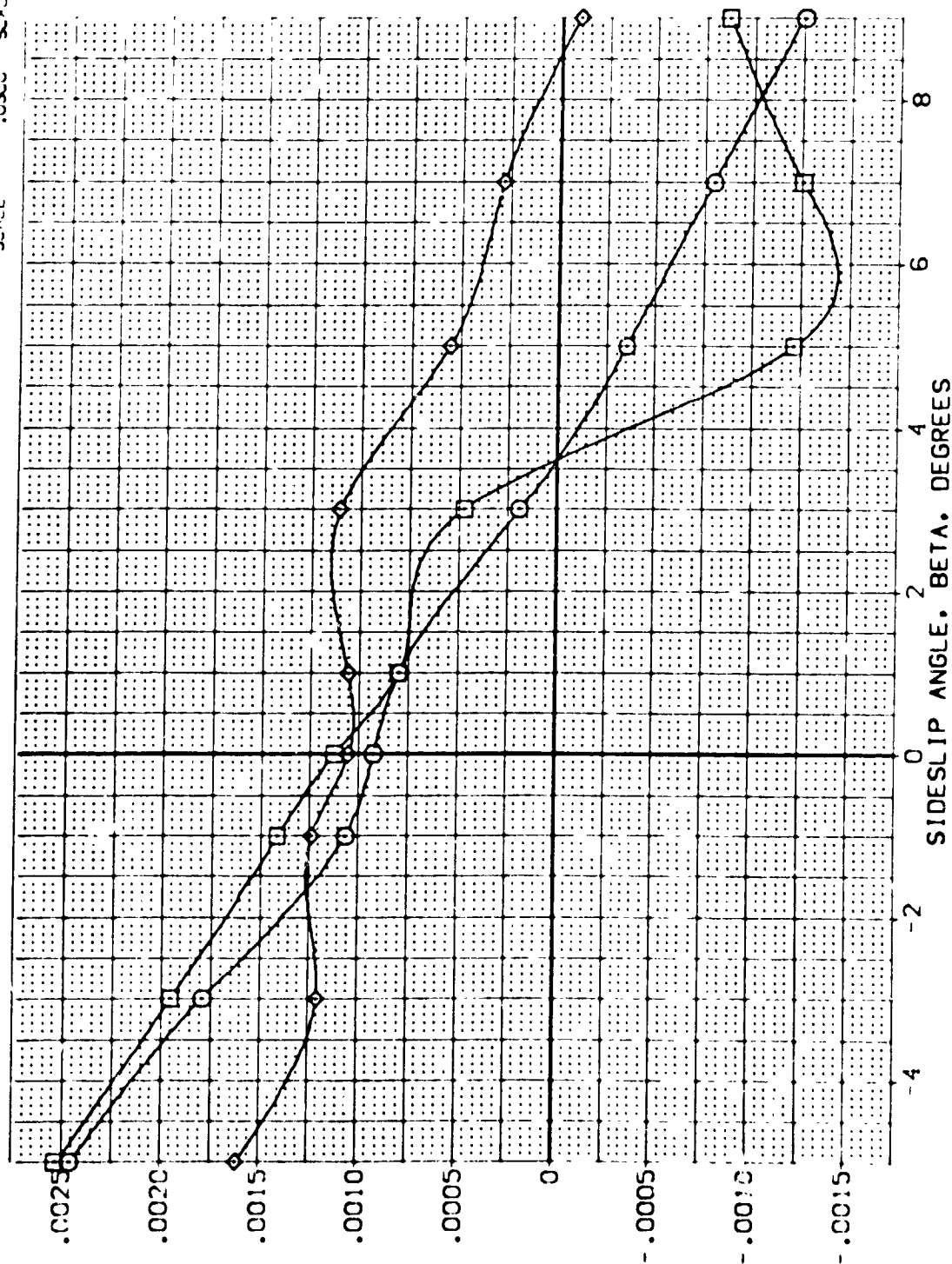


FIG. 26 INCREMENTAL SPEEDBRAKE EFFECTS (OSB= 55 - 25)

(COMAC) = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOF AP	ELEVON	REFERENCE INFORMATION
[1.039]	ARC 87-747 OASIC B C H F V	.000	.000	-11.700	.000	SREF 2.4210 SC.F.
[1.040]	ARC 87-747 OASIC B C H F V	.000	.000	-11.700	.000	REF 14.244C
[1.041]	ARC 87-747 OASIC B C H F V	.000	.000	-11.700	.000	REF 78.100A
		20.000				XREF 32.301C
						YREF .0000
						ZREF 11.7500
						SCALE .0300

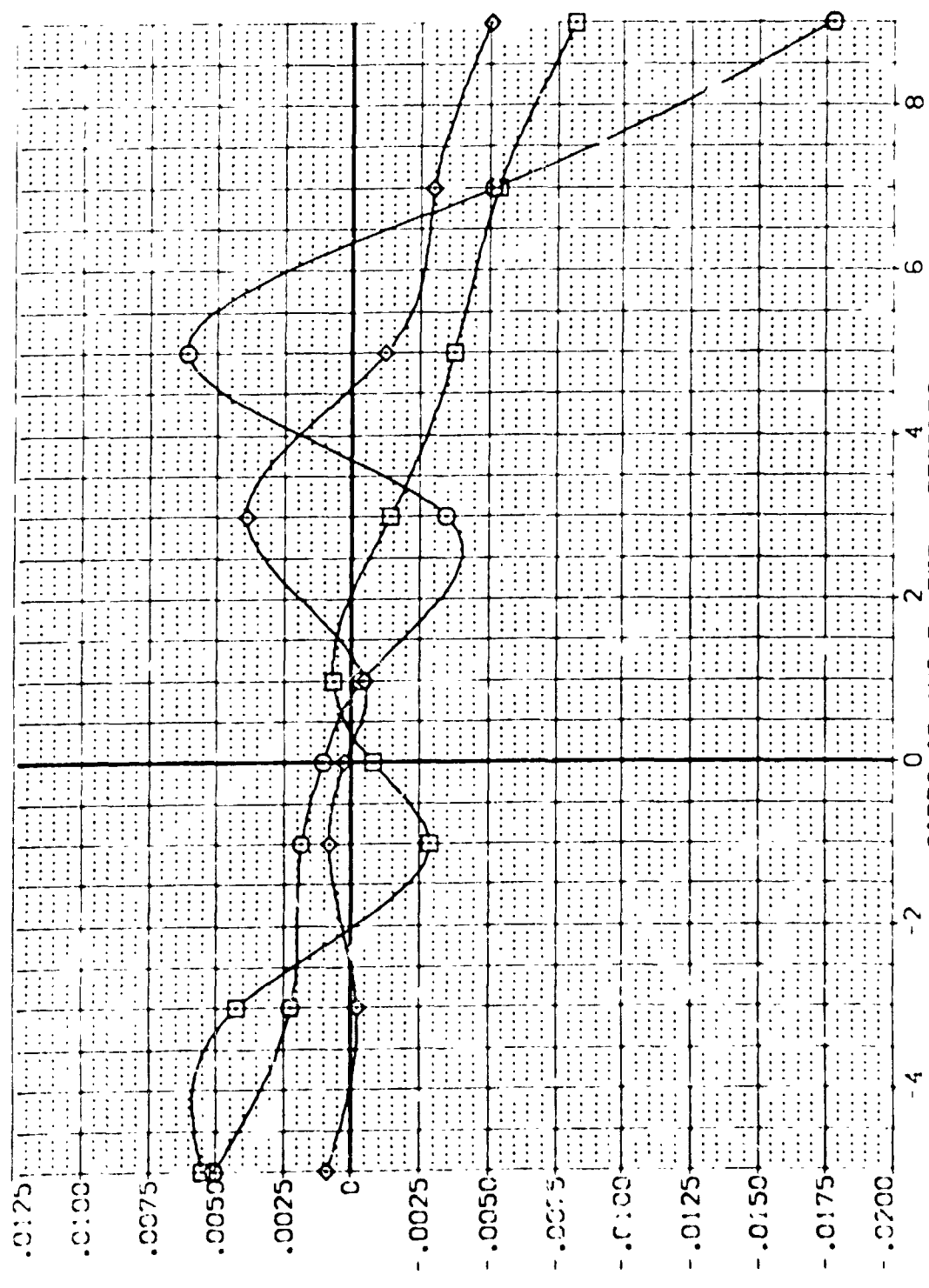
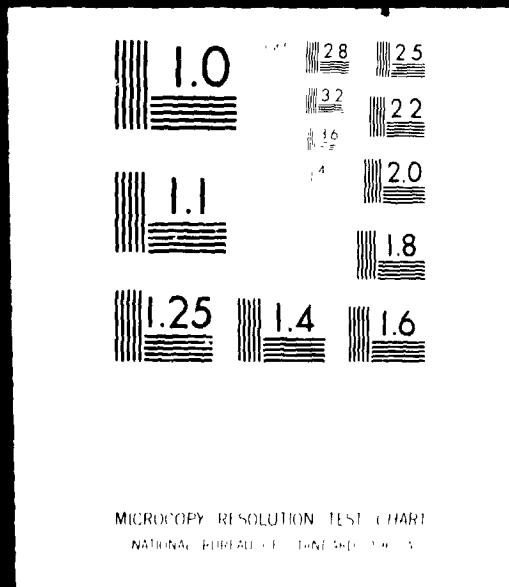


FIG. 27 INCREMENTAL SPEEDBRAKE EFFECTS. COS9= 85 -25)

N74 34334 UNCLAS,



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
(VELO33)	ARC 87-747 DAS3C B C M F V1 V	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
(VELO40)	ARC 87-747 DAS3C B C M F V1 V	10.000	.000	-11.700	.000	LREF 14.2440 IN.
(VELO41)	ARC 87-747 DAS3C B C M F V1 V	20.000	.000	-11.700	.000	BREF 20.1001 IN.
						XREF 32.0010 IN.
						YREF .0000 IN.
						ZREF 11.2500 IN.
						SCALE .0000

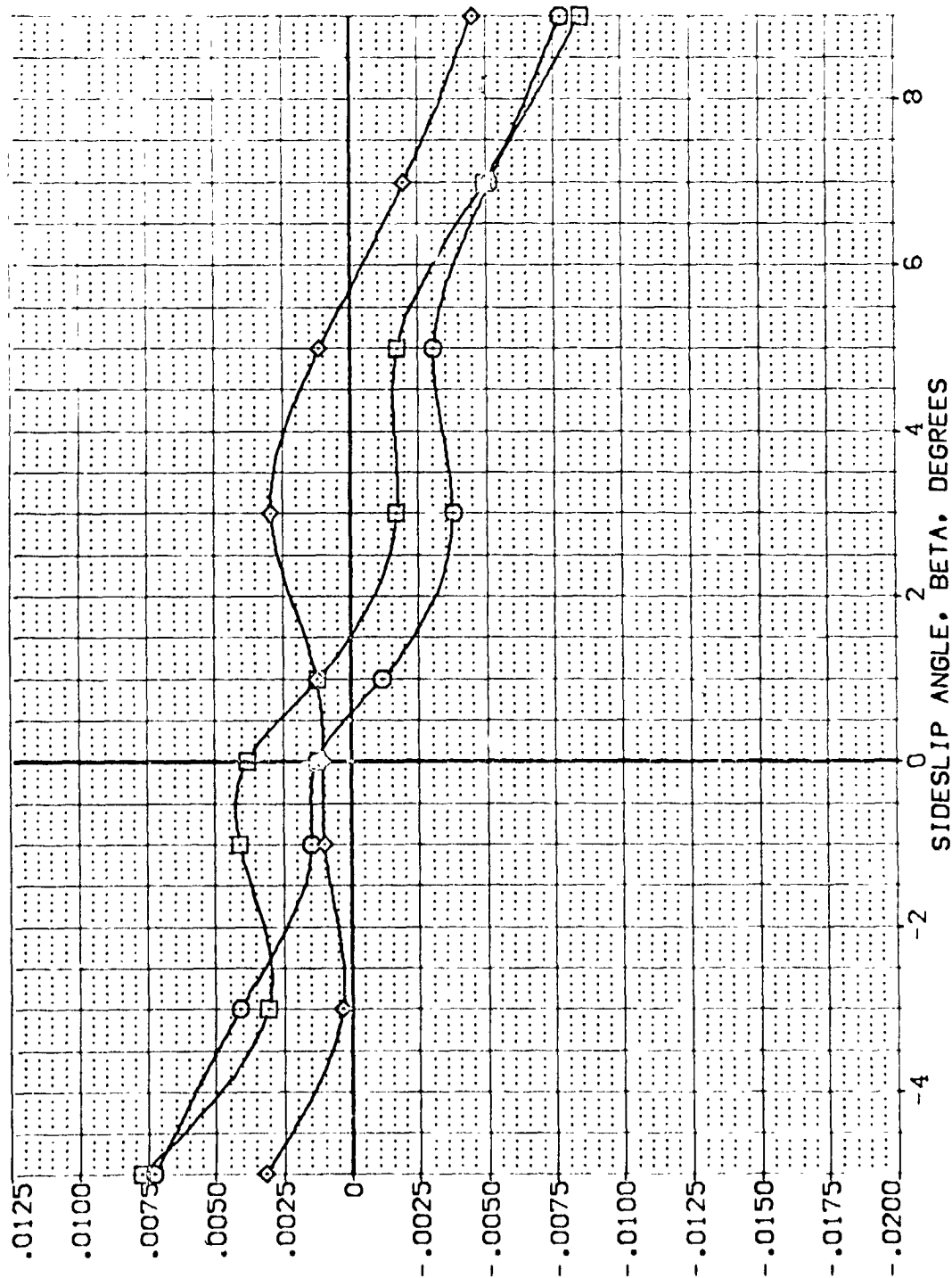


FIG. 27 INCREMENTAL SPEEDBRAKE EFFECTS, (DSB= 85 -25)

(B)MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOFLAP	ELEVON	REFERENCE INFORMATION
(VELO39)	ARC 87-747 QAS3C B C M F V1 V	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
(VELO40)	ARC 87-747 QAS3C B C M F V1 V	10.000	.000	-11.700	.000	LREF 14.2440
(VELO41)	ARC 87-747 QAS3C B C M F V1 V	20.000	.000	-11.700	.000	BREF 28.1004
						XMRP 37.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

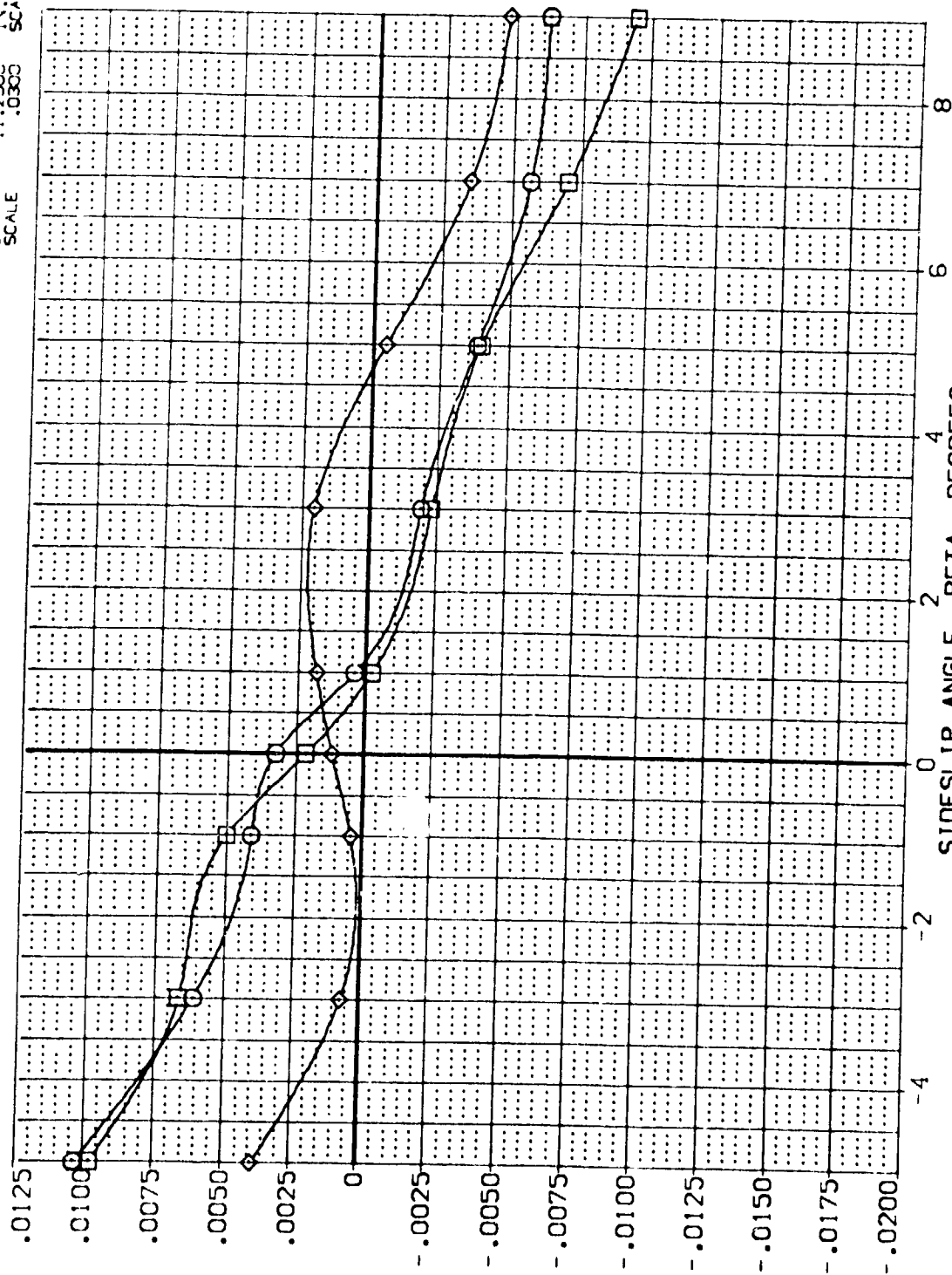


FIG. 27 INCREMENTAL SPEEDBRAKE EFFECTS, (DSB= 85 -25)

(C)MAC+ = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    NOT: R/V/L    ALPHA    RUDDER    BDF LAP    ELEVON    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOT: R/V/L	ALPHA	RUDDER	BDF LAP	ELEVON	REFERENCE INFORMATION
(VELO39)	ARC 87-747 DASSC B C M F VI V	NOT: R/V/L	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
(VELO40)	ARC 87-747 DASSC B C M F VI V	NOT: R/V/L	10.000	.000	-11.700	.000	LREF 14.2440 IN.
(VELO41)	ARC 87-747 DASSC B C M F VI V	NOT: R/V/L	20.000	.000	-11.700	.000	BREF 28.1004 IN.
							XMRP 32.3010 IN.
							YMRP .0000 IN.
							ZMRP 11.2500 IN.
							SCALE .0300

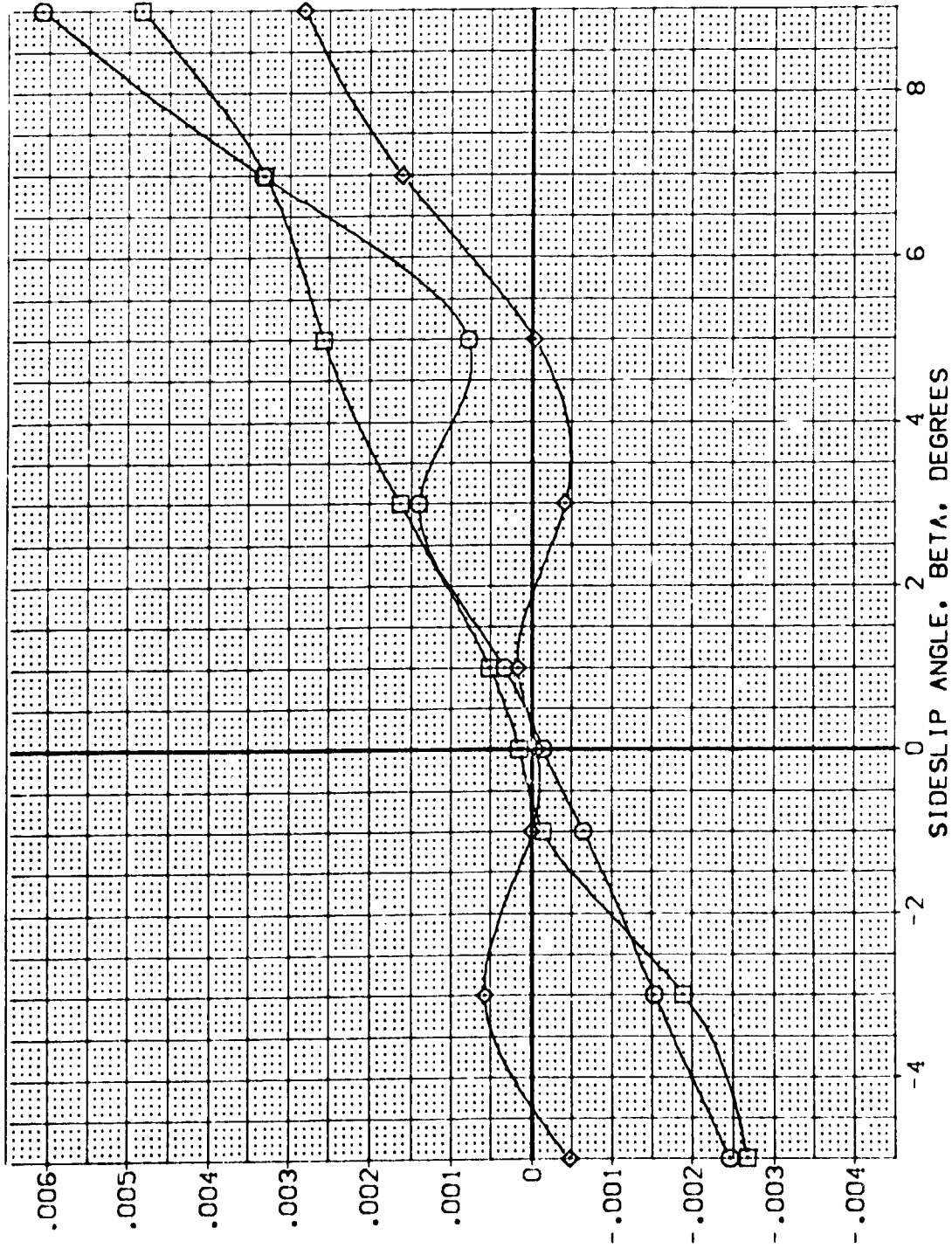
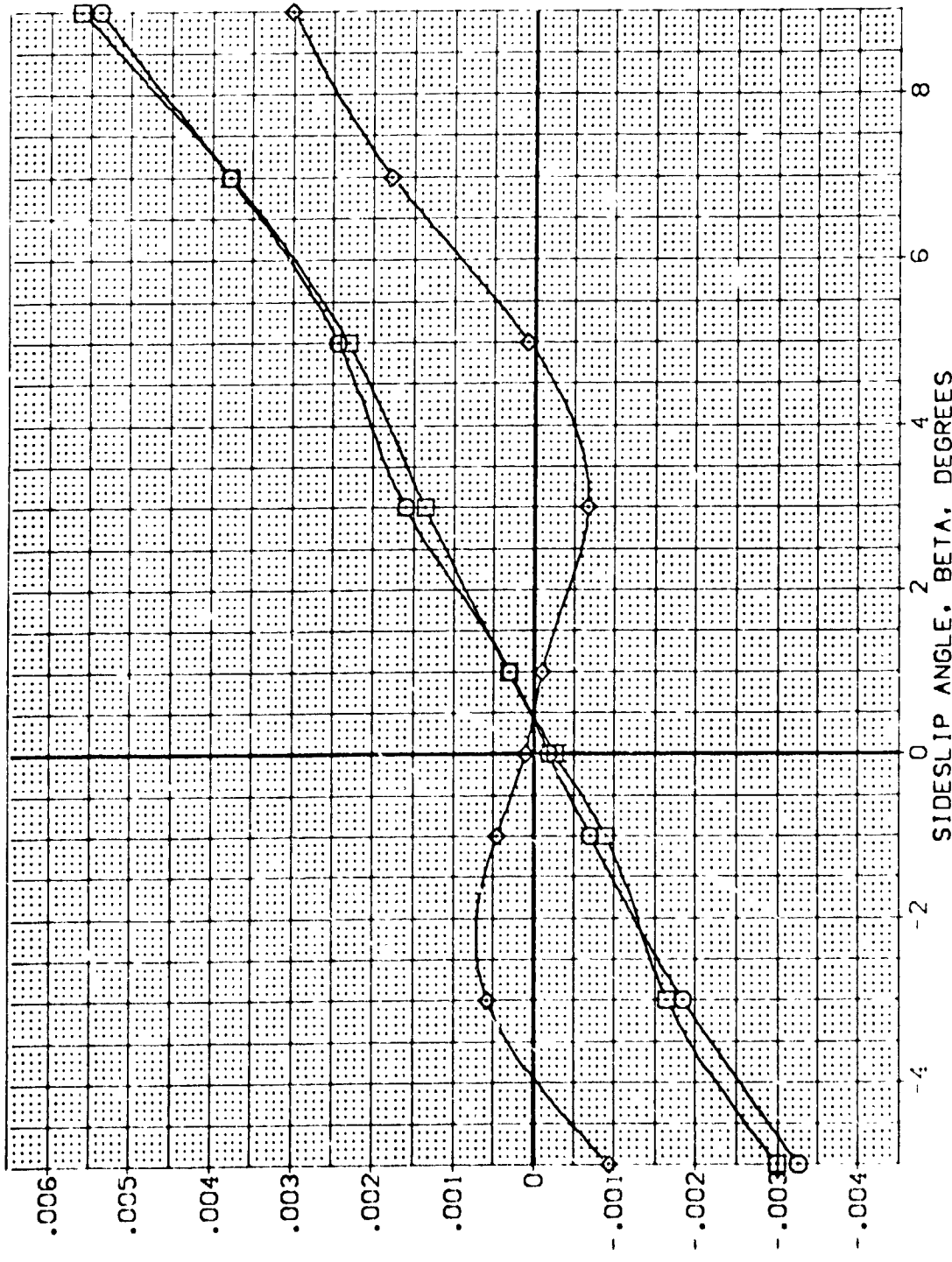


FIG. 27 INCREMENTAL SPEEDBRAKE EFFECTS, (DSB= 85 -25)

(A)MAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
[VELO39]	ARC 87-747 DAS3C B C M F V1 V	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
[VELO40]	ARC 87-747 DAS3C B C M F V1 V	10.000	.000	-11.700	.000	LREF 14.2440
[VELO41]	ARC 87-747 DAS3C B C M F V1 V	20.000	.000	-11.700	.000	BREF 28.1000
						XREF 32.3010
						YREF .0000
						ZREF 11.2500
						SCALE .0300



INCREMENTAL YAWING MOMENT COEFFICIENT, DCYN

FIG. 27 INCREMENTAL SPEEDBRAKE EFFECTS, (DSB= 85 -25)

(3)MACH = 3.00

INCREMENTAL YAWING MOMENT COEFFICIENT, DCYN

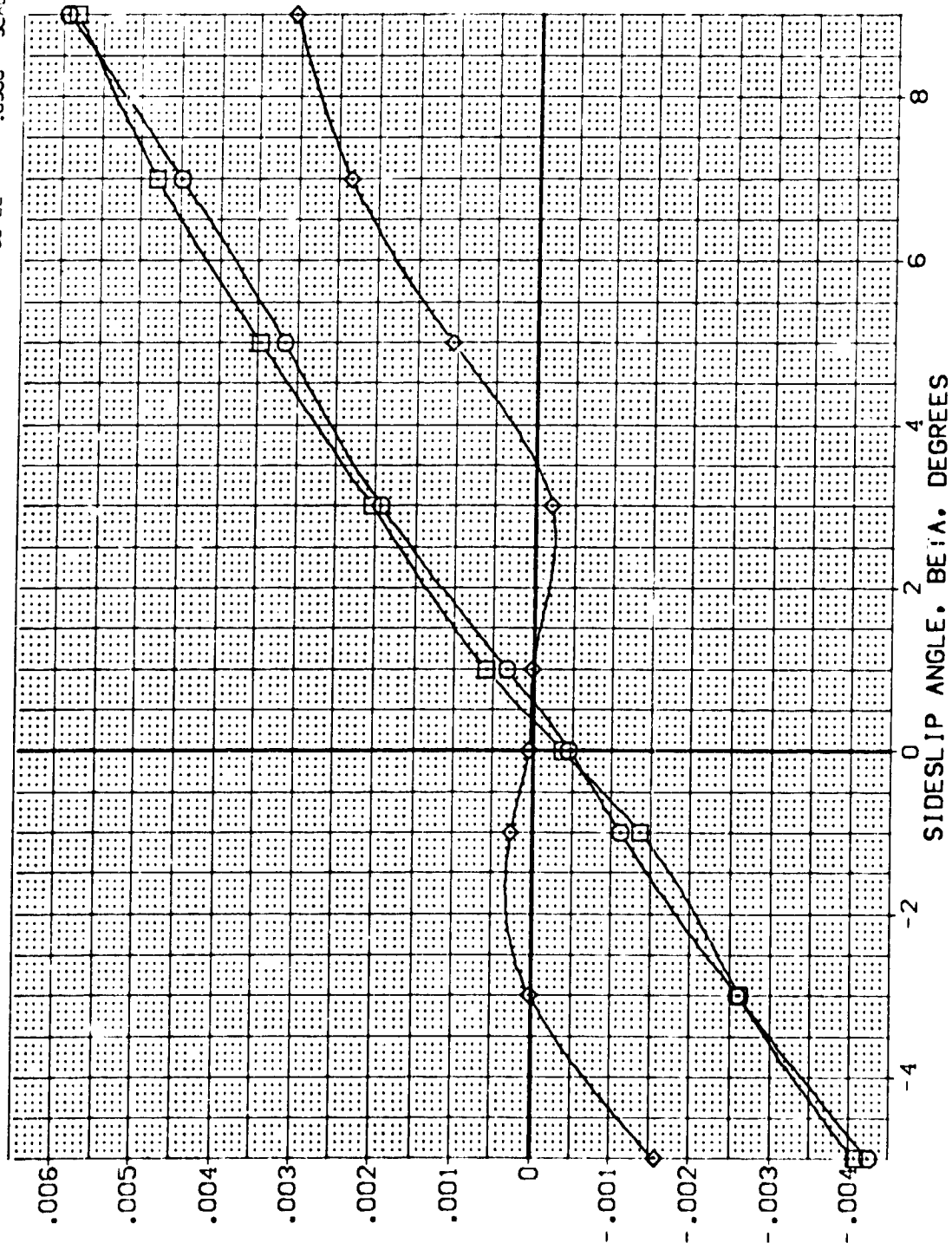


FIG. 27 INCREMENTAL SPEEDBRAKE EFFECTS. (DSB= 85 -25)

$$(\text{COMAC}) = 3.50$$


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
{VELOC2}	ARC 87-747 BASEC B C M F V	.000	.000	-11.700	.000	SREF 2.4210 50. FT.
{VELOC3}	ARC 87-747 BASEC B C M F V	10.000	.000	-11.700	.000	LREF 14.2440 IN.
{VELOC4}	ARC 87-747 BASEC B C M F V	20.000	.000	-11.700	.000	BREF 28.1004 IN.
						XTRP 32.3010 IN.
						YTRP .0000 IN.
						ZTRP 11.2500 IN.
						SCALE .0300

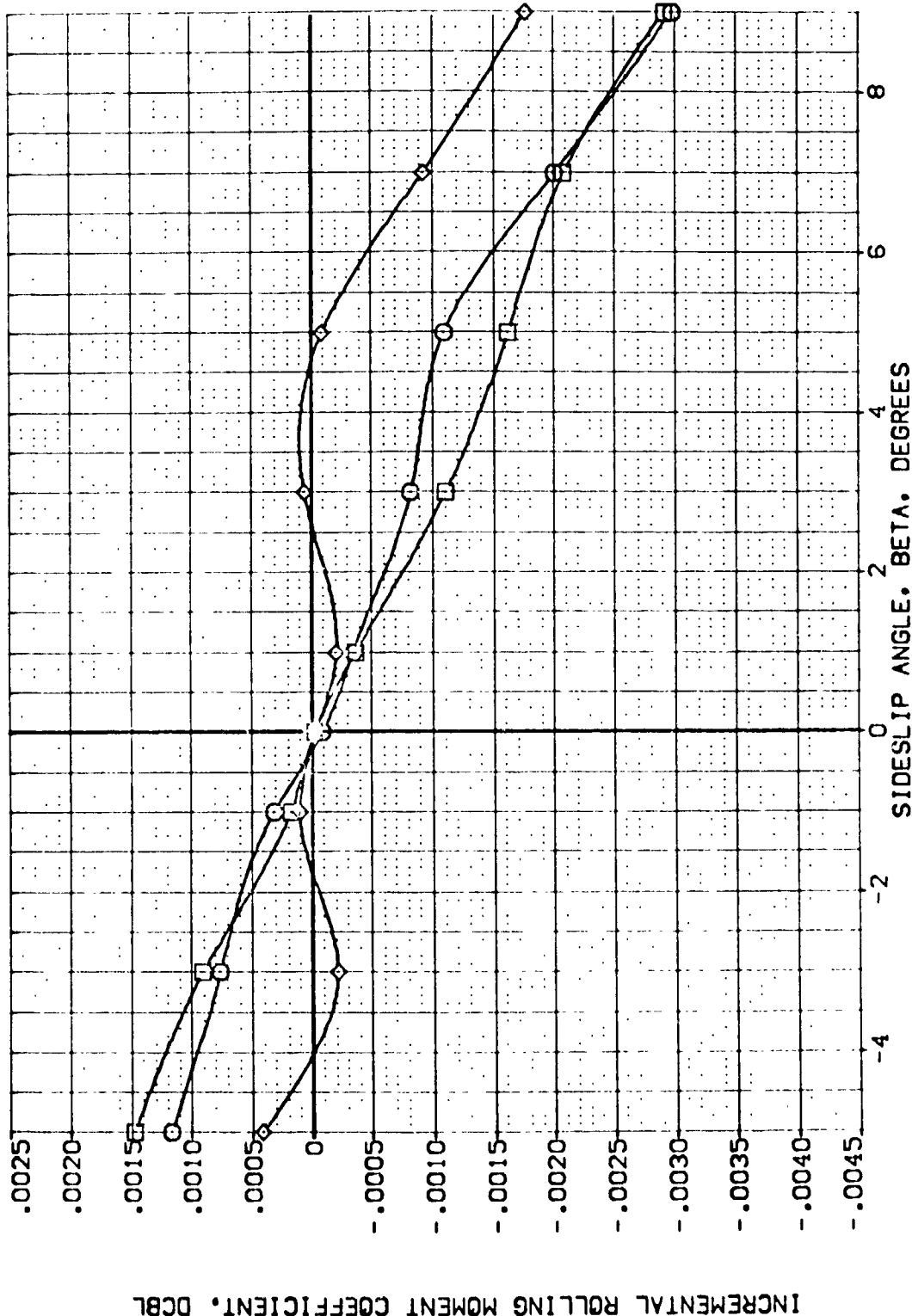


FIG. 27 INCREMENTAL SPEEDBRAKE EFFECTS, (DSB= 85 -25)

(A) MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDFLAP	ELEVON	REFERENCE INFORMATION
[VELOC8]	ARC 87-747 BAS3C B C M F VI V	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
[VELOC9]	ARC 87-747 BAS3C B C M F VI V	10.000	.000	-11.700	.000	LREF 14.2140 IN.
[VELOC1]	ARC 87-747 BAS3C B C M F VI V	20.000	.000	-11.700	.000	BREF 28.1004 IN.
						XMRP 32.3010 IN.
						YMRP .0000 IN.
						ZMRP 11.2500 IN.
						SCALE .0300

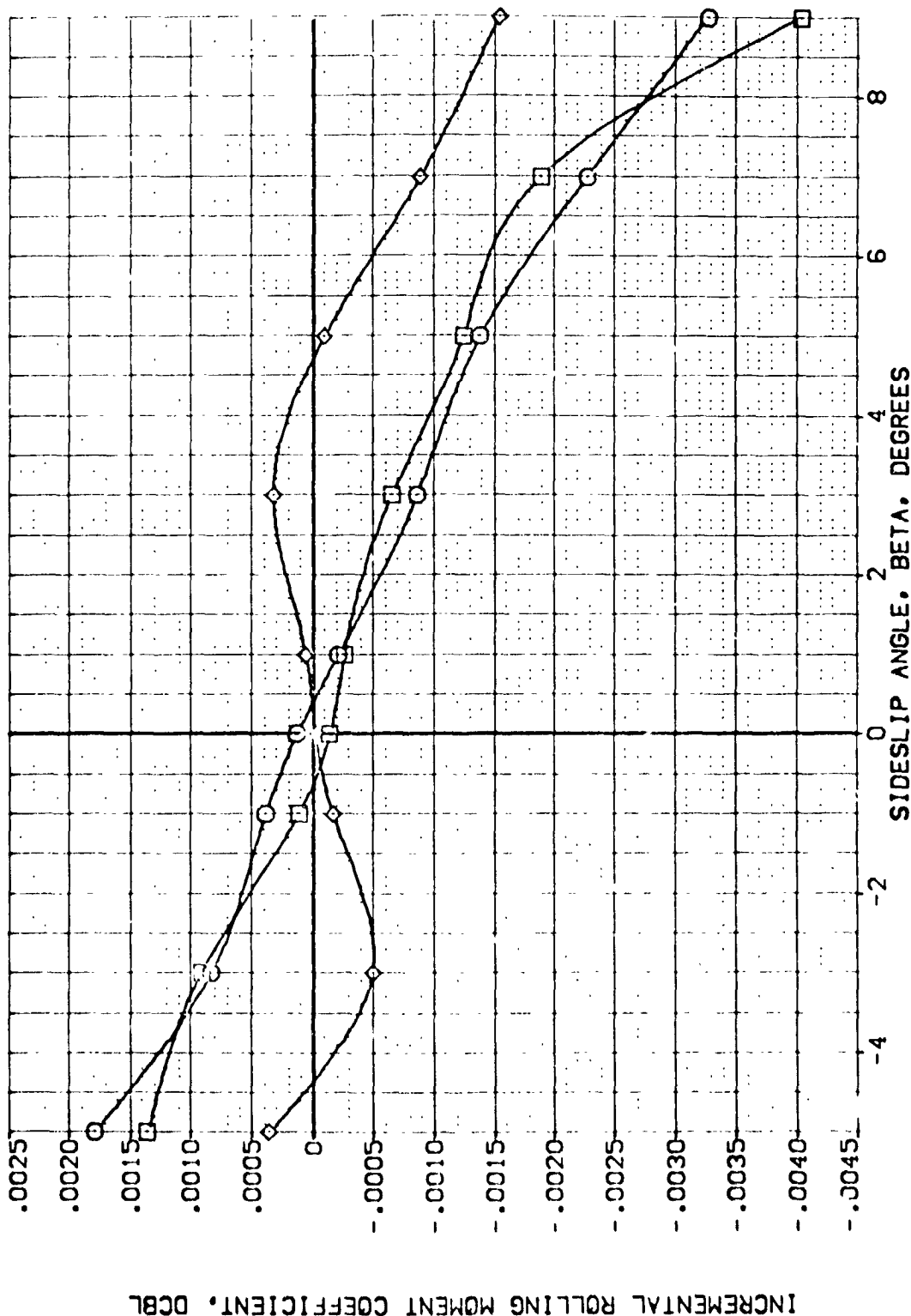


FIG. 27 INCREMENTAL SPEEDBRAKE EFFECTS, (DSB= 85 -25)

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
(VELOS)	ARC 87-747 OAS3C B C M F V1 V	.000	.000	-11.700	.000	SREF 2.4210 SC.F.T.
(VELO40)	ARC 87-747 OAS3C B C M F V1 V	10.000	.000	-11.700	.000	LREF 14.7440
(VELO41)	ARC 87-747 OAS3C B C M F V1 V	20.000	.000	-11.700	.000	BREF 28.1004
						YMRP 32.3010
						ZMRP .0000
						SCALE 11.2500
						SCALE .0300

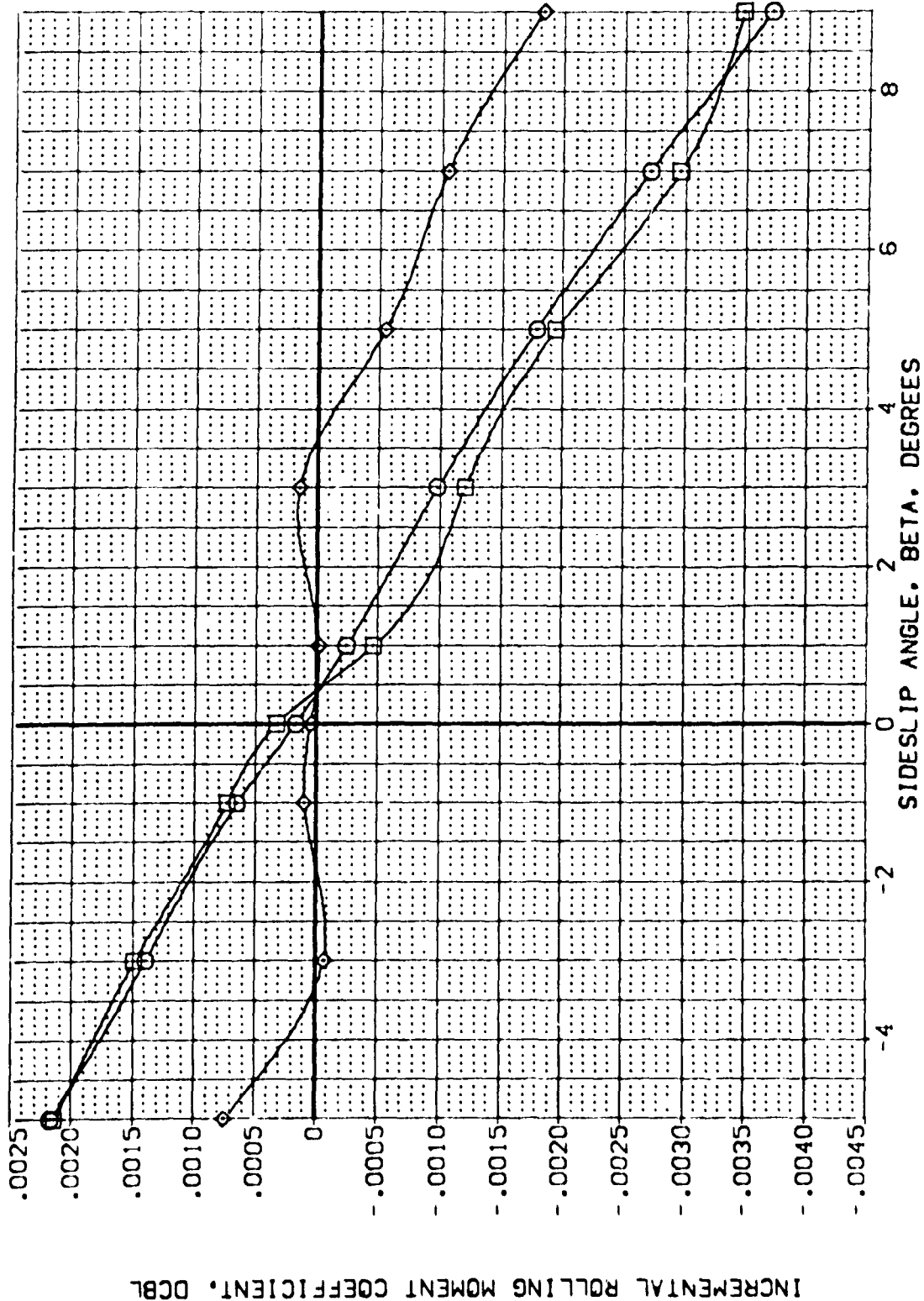


FIG. 27 INCREMENTAL SPEEDBRAKE EFFECTS. (OSB= 85 -25)

(C)MAC = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BDLAP	ELEVON	REFERENCE INFORMATION
[VEL012]	ARC 87-747 OAS3C B C M F V1 V	.000	.000	-11.700	.000	SREF 2.4210 50.17
[VEL013]	ARC 87-747 OAS3C B C M F V1 V	10.000	.000	-11.700	.000	LREF 14.2440
[VEL014]	ARC 87-747 OAS3C B C M F V1 V	20.000	.000	-11.700	.000	BREF 28.1004
						XMRD 32.3010
						YMRD .0000
						ZMRD 11.2500
						SCALE .0300

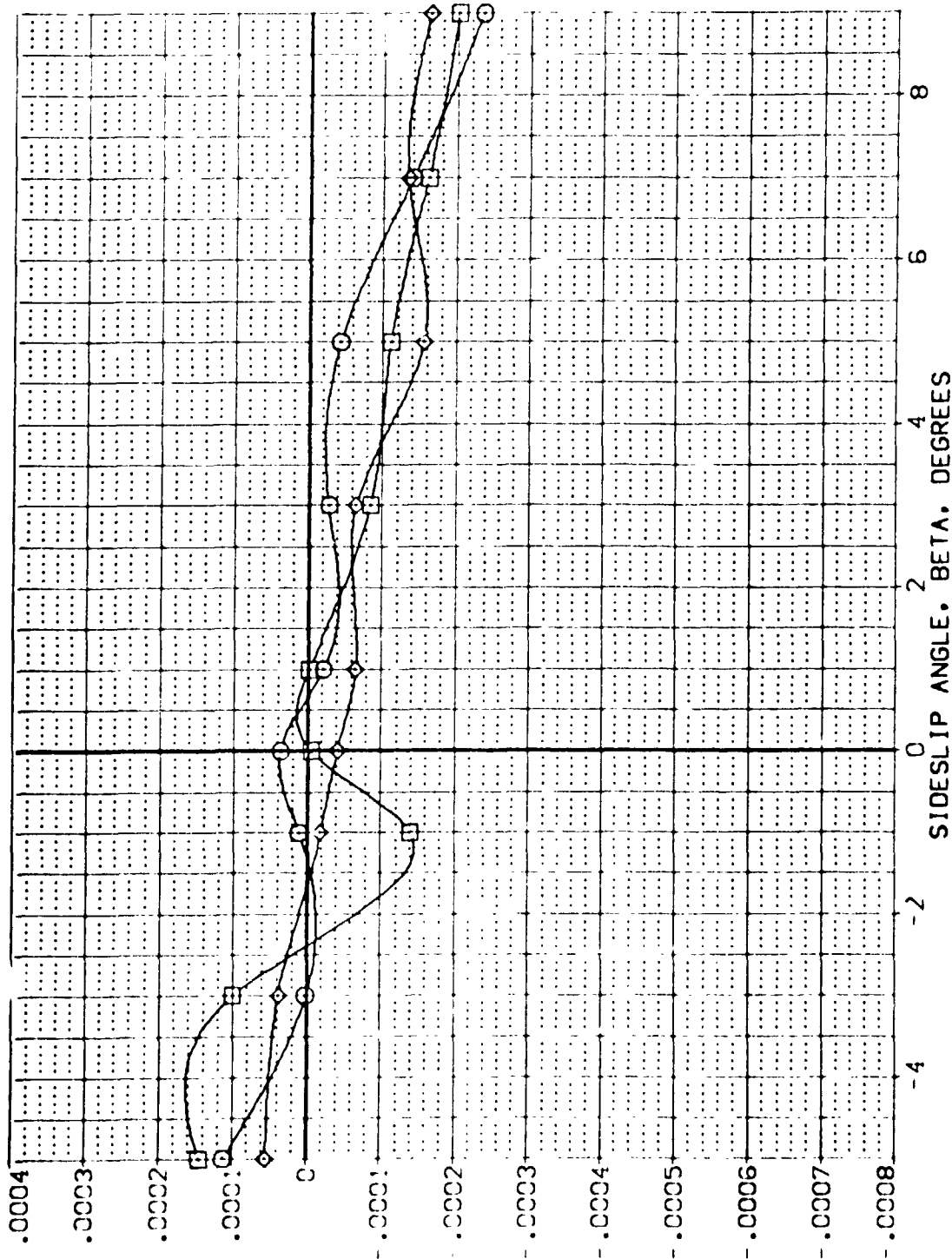


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

(A)  $\gamma_{AC} = 2.50$



DATA SET SYMBOL

VAL012)

VAL013)

VAL014)

CONFIGURATION DESCRIPTION

ARC 87-747 BASEC B C M F V)

ARC 87-747 BASEC B C M F V)

ARC 87-747 BASEC B C M F V)

ALPHA

.000

10.000

20.000

RUDDER

.000

.000

.000

BOFLAP

-11.700

-11.700

-11.700

ELEVON

.000

.000

.000

REFERENCE INFORMATION

SREF 2.4710 50.FT.

BREF 14.7440

BREF 28.1004

XMRP 32.3010

ZMRP .0000

SCALE 11.2500

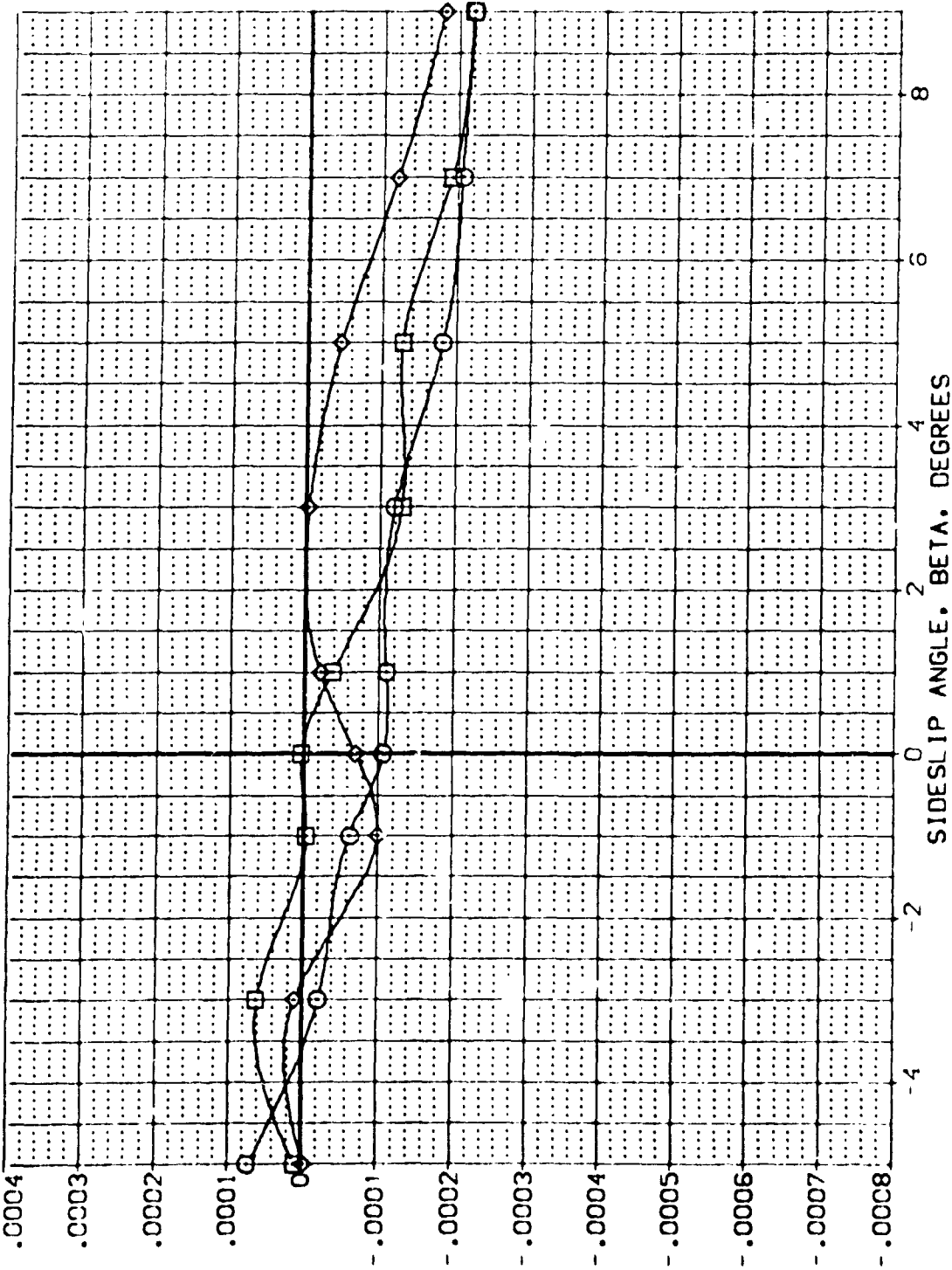


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	R-ODDER	BOFLAP	ELEVON	REFERENCE INFORMATION
(VE-012)	ARC 87-747 DASSC B C H F VI V	.000	.000	-11.700	.000	SREF 2.4210 50. FT.
(VE-013)	ARC 87-747 DASSC B C H F VI V	10.000	.000	-11.700	.000	LREF 14.2440
(VE-014)	ARC 87-747 DASSC B C H F VI V	20.000	.000	-11.700	.000	BREF 28.004
						XMRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

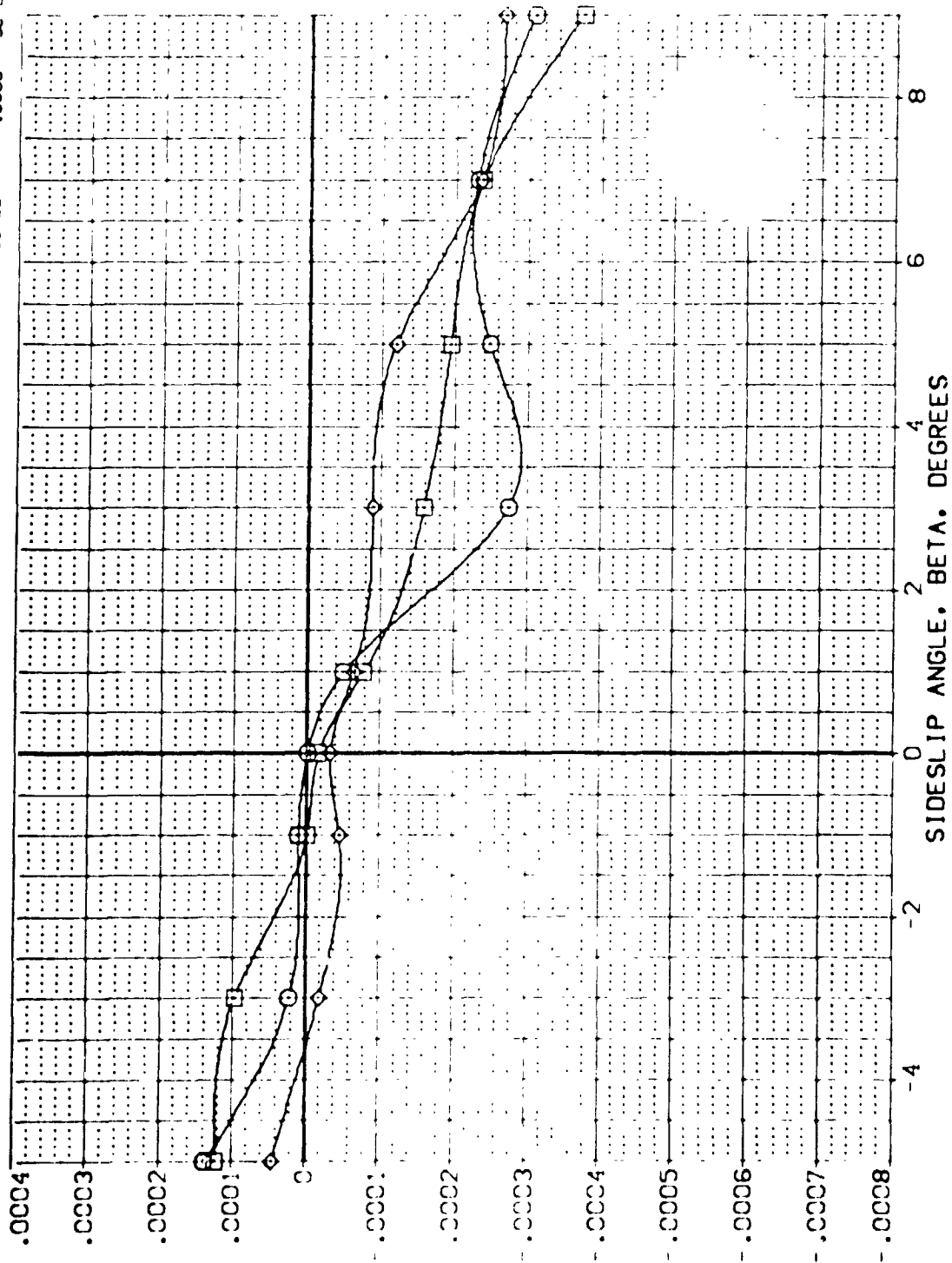


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

(C) MAC 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(V1:012) ARC 87-747 DAS3C B C M F V1 V NOM: RV/L

(V1:013) ARC 87-747 DAS3C B C M F V1 V NOM: RV/L

(V1:014) ARC 87-747 DAS3C B C M F V1 V NOM: RV/L

ALPHA RUDDER BOFLAP ELEVON

.000 .000 .000 .000

10.000 .000 .000 .000

20.000 .000 .000 .000

REFERENCE INFORMATION

SPRKE 2.4210 SQ.F.

GR-E 14.2440

GR-E 28.1004

GR-E 32.3010

GR-E 11.2500

GR-E .0300 SCALE

ROLLING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCYNDS. PER DEG

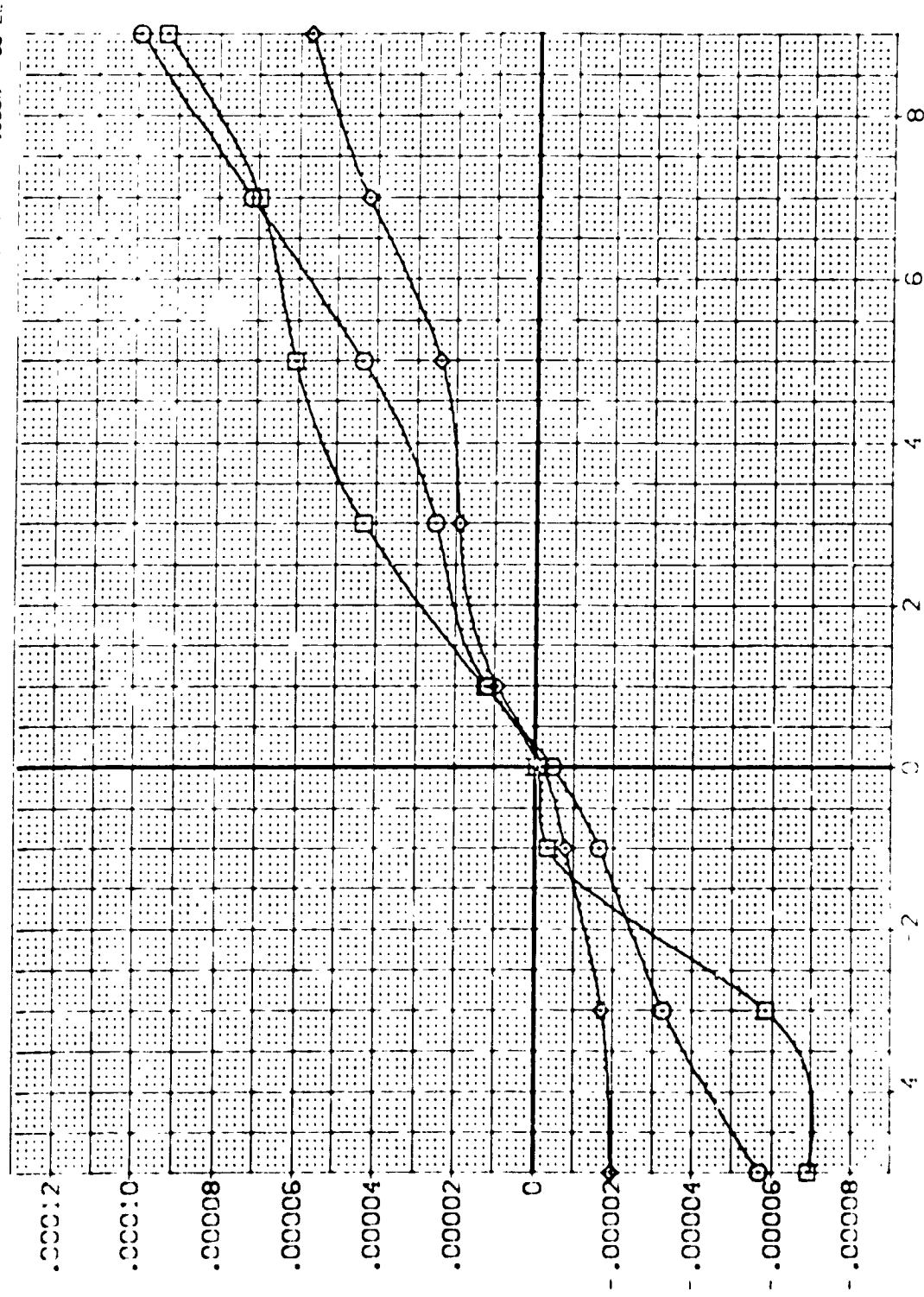


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT. (BASELINE = 25 DEGS.)

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOLFAP    ELEVON    REFERENCE INFORMATION

[41.012]	ARC 87-747 BASIC B C H F V	.000	.000	-11.700	.000	SREF 2.4210 SC.FT.
[46.013]	ARC 87-747 BASIC B C H F V	10.000	.000	-11.700	.000	LREF 14.7440
[47.014]	ARC 87-747 BASIC B C H F V	20.000	.000	-11.700	.000	REF 28.1004
						XREF 32.3010
						YREF 11.2500
						ZREF 11.2500
						SCALE .0300

YAWING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFLECT. DCYNDS. PER DEG

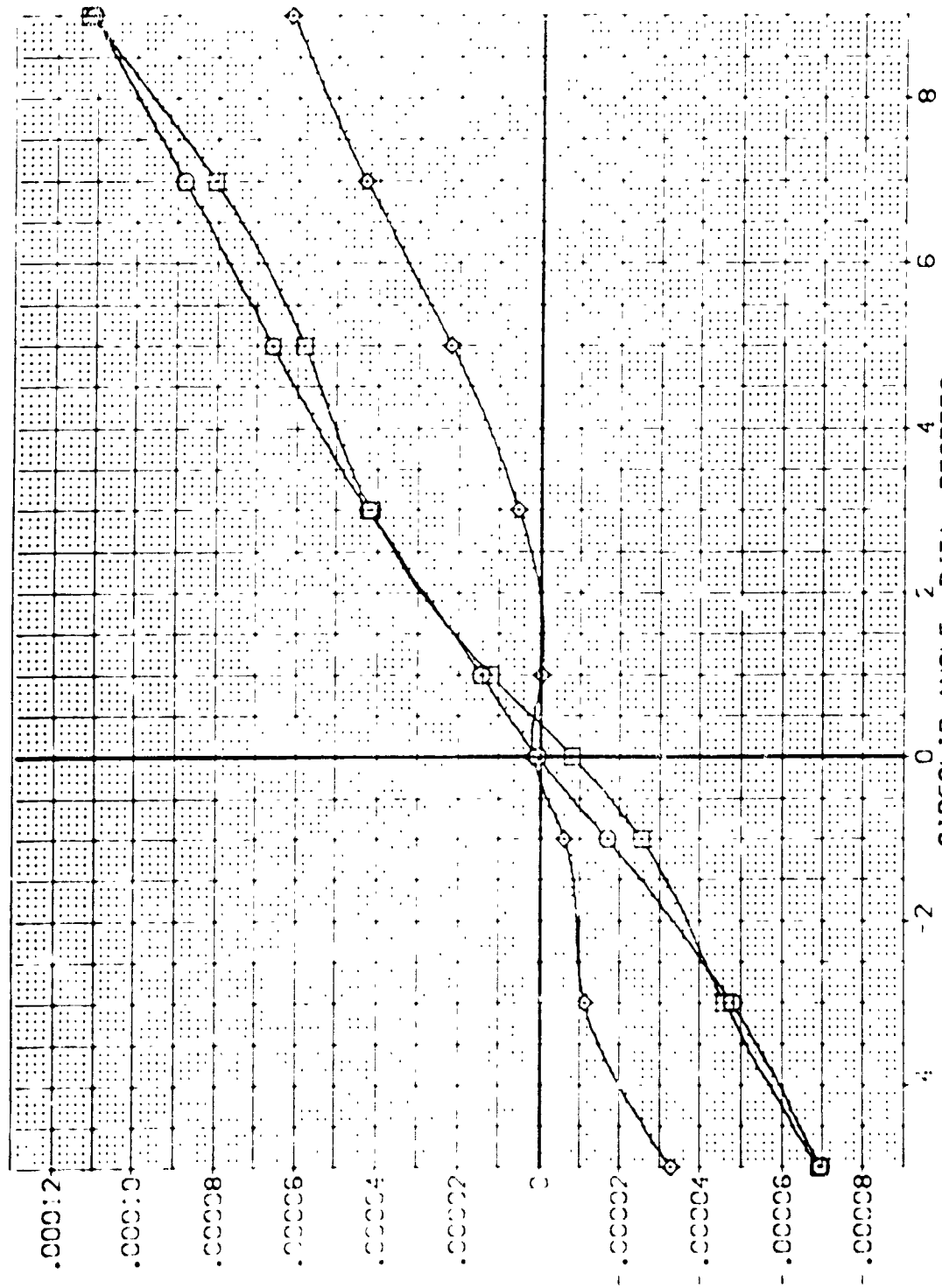


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
[VELO12]	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	.000	SPRF 2.4210 SQ.FT.
[VELO13]	ARC 87-747 OAS3C B C M F V	10.000	.000	-11.700	.000	LPREF 14.2440
[VELO14]	ARC 87-747 OAS3C B C M F V	20.000	.000	-11.700	.000	BPREF 20.1000
						YMPD 32.3310
						ZMPD .0000
						ZMPR 11.2600
						SCALE .0000

YAWING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCYNDS. PER DEG

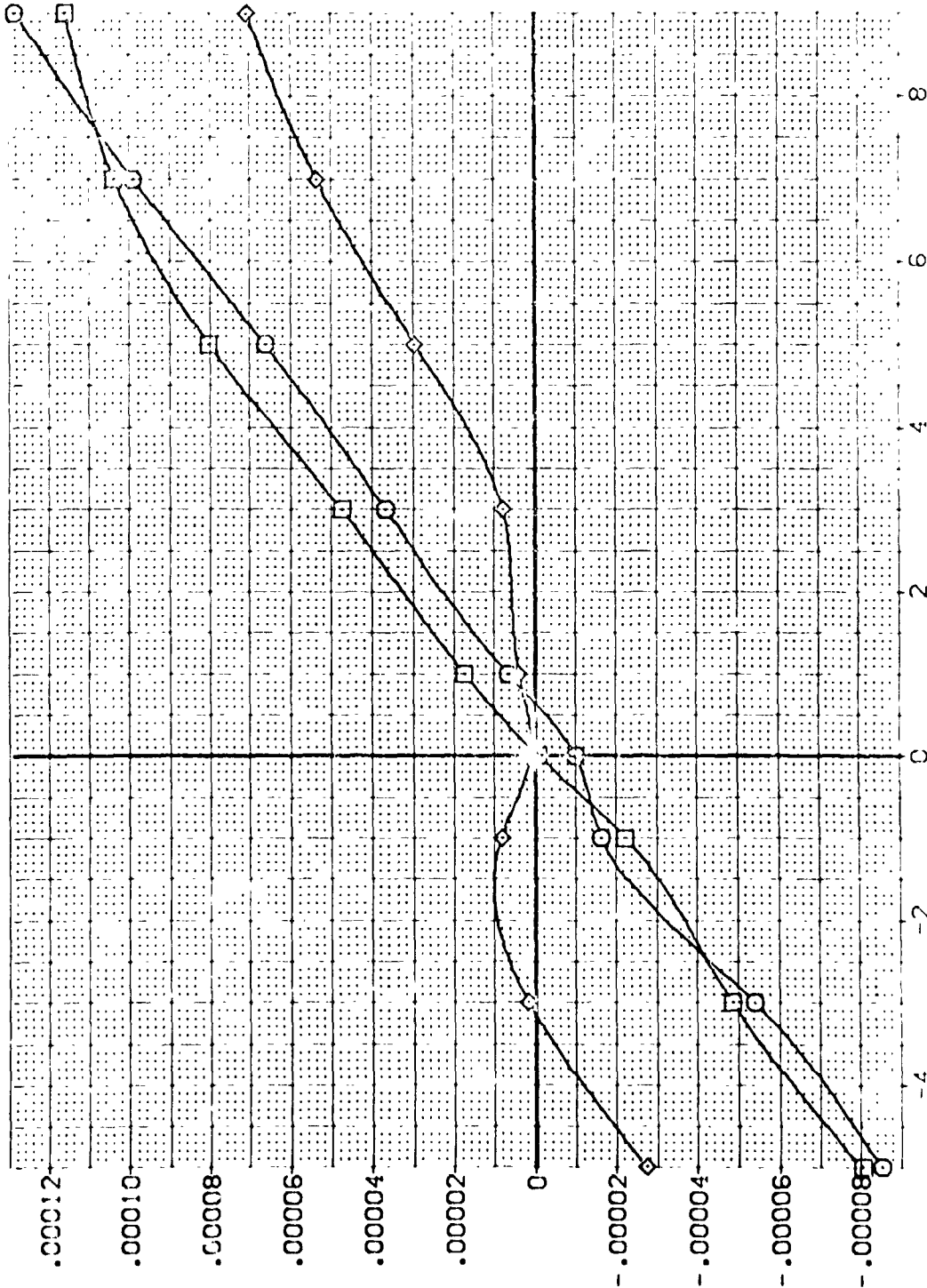


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(VEL012) □ ARC 87-747 CAS3C B C M F V V

(VEL013) □ ARC 87-747 CAS3C B C M F V V

(VEL014) □ ARC 87-747 CAS3C B C M F V V

NO. RN/L

NO. RN/L

NO. RN/L

ALPHA ROLLER BOFLAP ELEVON

.000 .000 .000

10.000 .000 .000

20.000 .000 .000

REFERENCE INFORMATION

SREF 2.4210 SQ.FT.

LREF 14.2440

BREF 28.1004

XREF 32.3010

YREF 11.0000

SCALE 11.0000

ROLLING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCBLDS. PER DEG

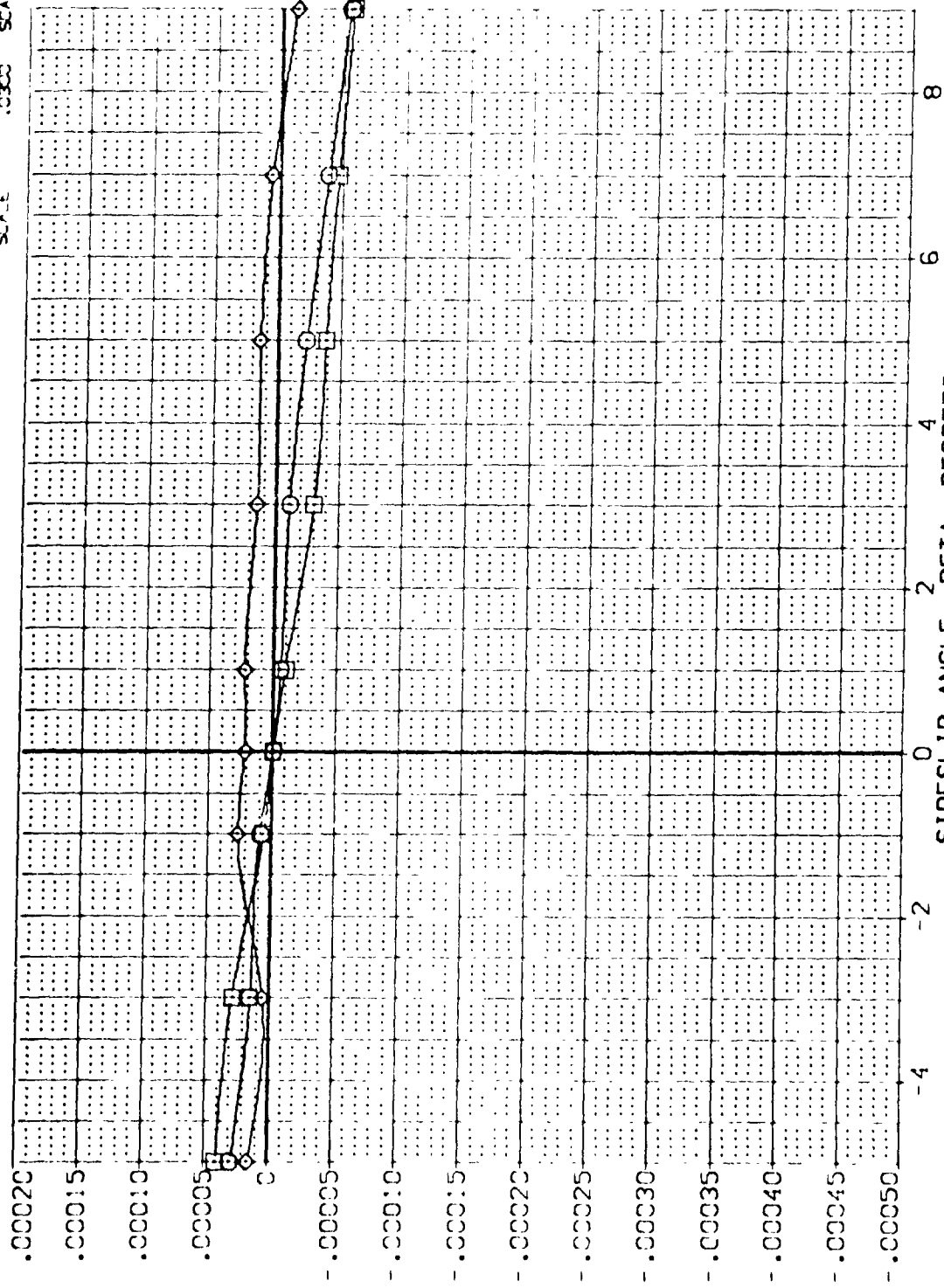


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

(A)MAC = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOF LAP	ELEVON	REFERENCE INFORMATION
[VELD:2]	ARC 87-747 D453C B C M F V	.000	.000	-11.700	.000	SREF 2.4210 50.FT.
[VELD:3]	ARC 87-747 D453C B C M F V	10.000	.000	-11.700	.000	LREF 14.2440
[VELD:4]	ARC 87-747 D453C B C M F V	20.000	.000	-11.700	.000	BREF 28.1004
						XREF 32.3010
						YREF .0000
						ZREF 11.2500
						SCALE .0300

ROLLING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCBLDS. PER DEG

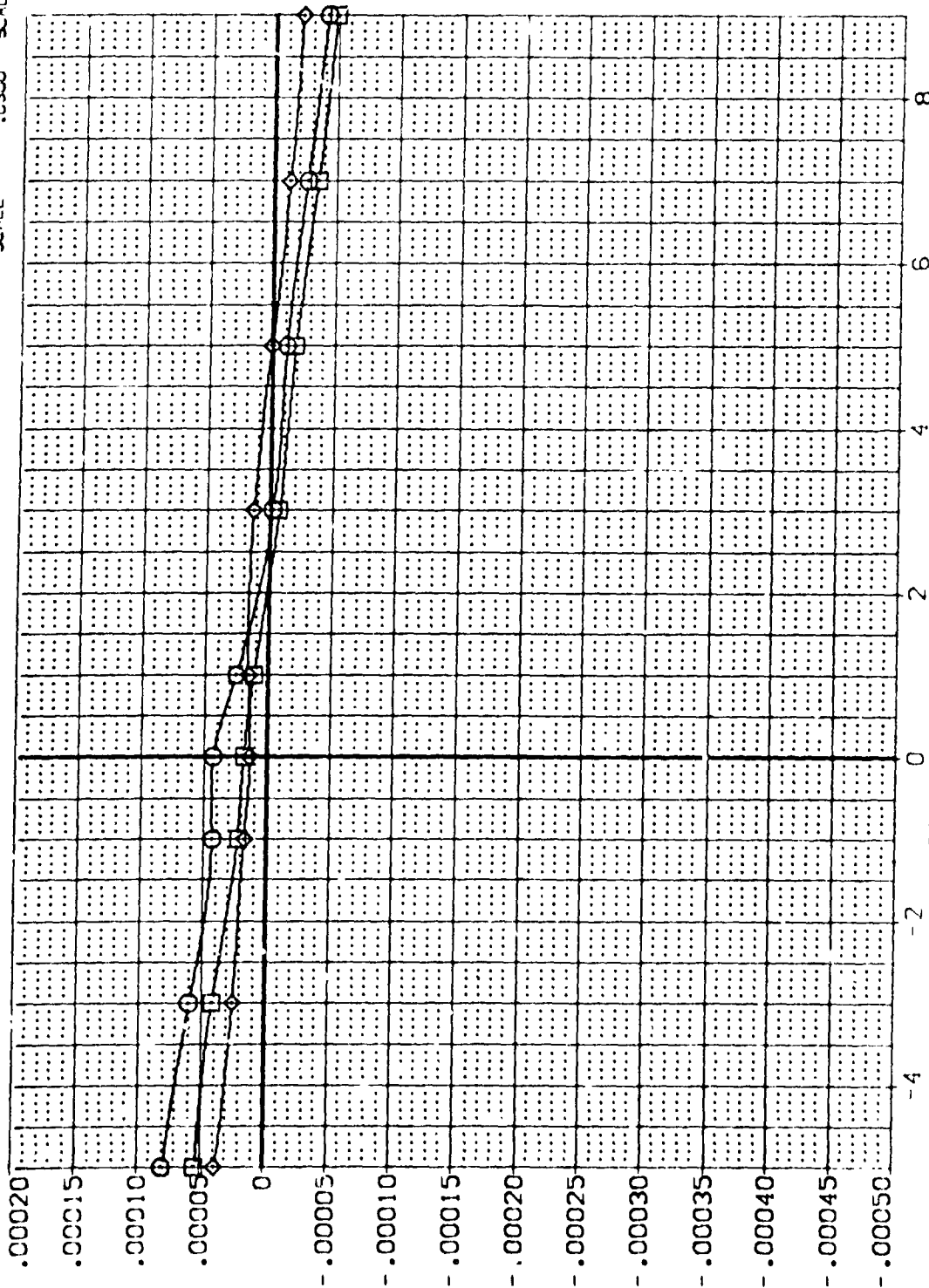


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT. (BASELINE = 25 DEGS.)

(3) VAC - 3.00

ROLLING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCBLDS. PER DEG

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
(VELO:2)	ARC 87-747 OAS3C B C M F V1 V	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
(VELO:3)	ARC 87-747 OAS3C B C M F V1 V	10.000	.000	-11.700	.000	LREF 14.244C IN.
(VELO:4)	ARC 87-747 OAS3C B C M F V1 V	20.000	.000	-11.700	.000	BREF 28.100A IN.
						XMRP 32.300C IN.
						YMRP .000C IN.
						ZMRP 11.250C IN.
						SCALE .0300

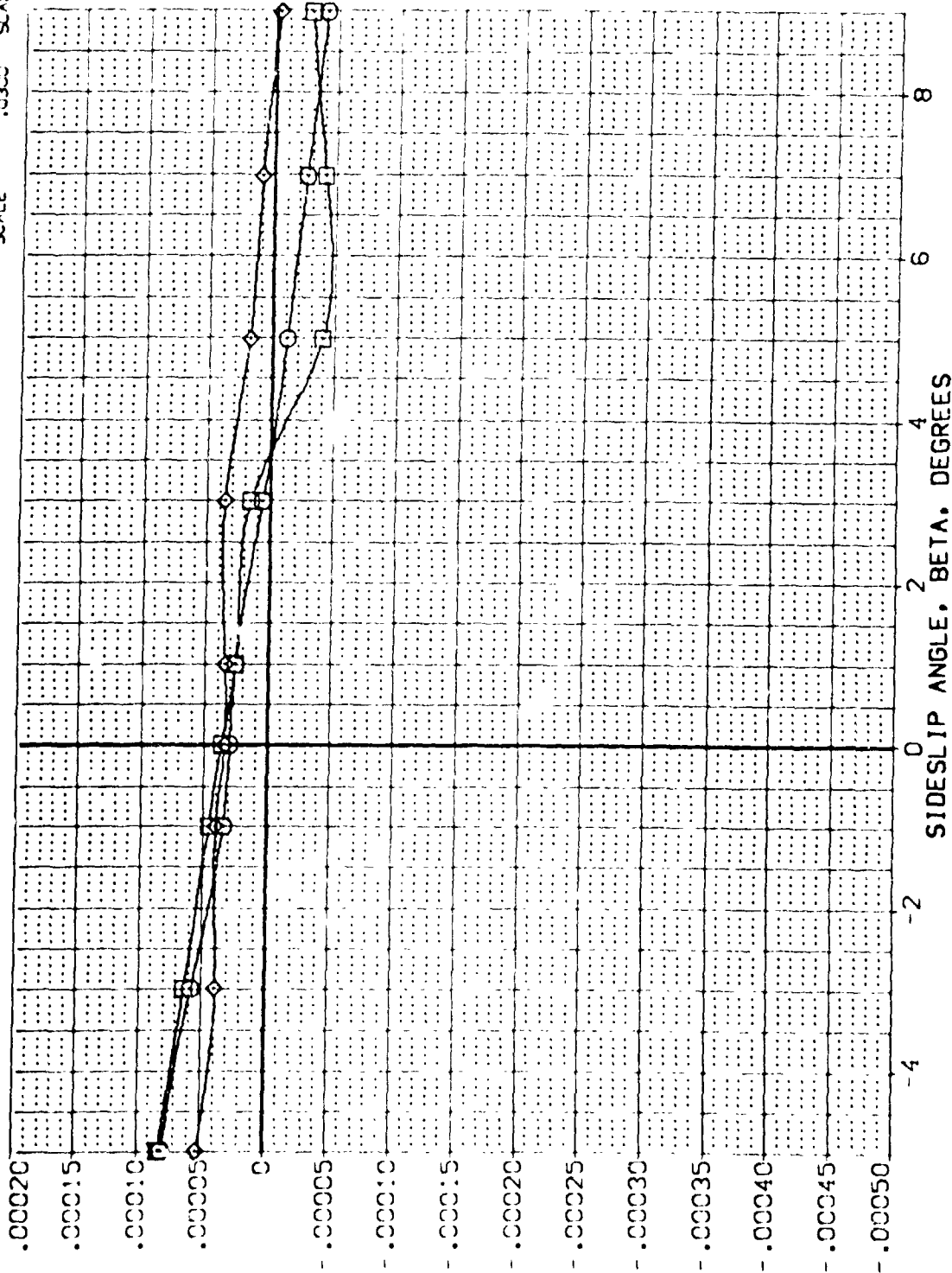


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

(C)MAC = 3.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
VE-012	ARC 87-747 QAS5C B C M F V	10.000	.000	-11.700	.000	SREF 2.4210 SC.FT.
VE-013	ARC 87-747 QAS5C B C M F V	20.000	.000	-11.700	.000	LRREF 14.2440
VE-014	ARC 87-747 QAS5C B C M F V	20.000	.000	-11.700	.000	BRREF 28.1004
						XRREF 32.3010
						YRREF 11.2500
						ZRREF 11.2500
						SCALE .0300

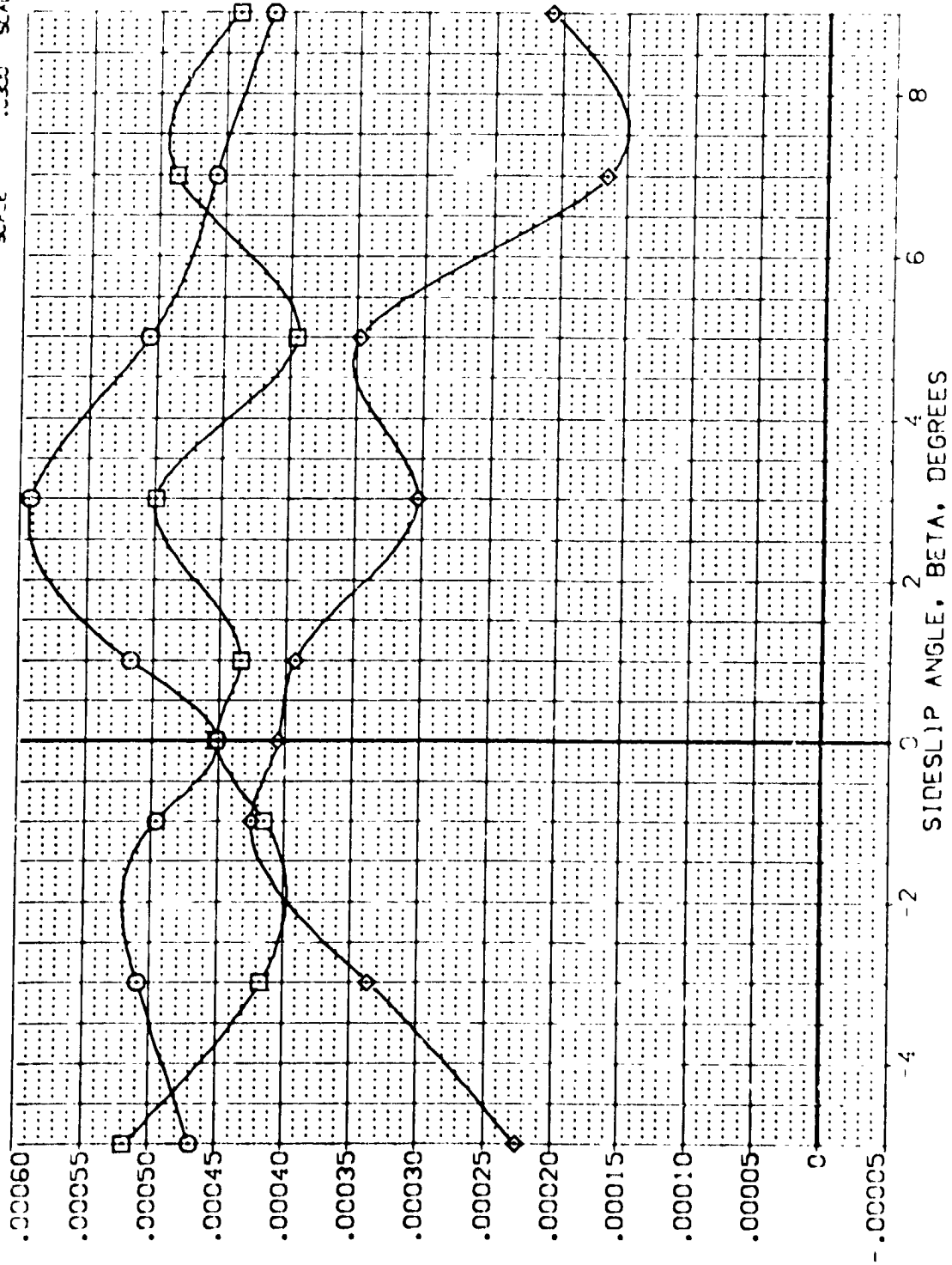


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT. (BASELINE = 25 DEGS.)

MAC = 2.50

PITCHING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCLMDS, PER DEG

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOFLAP	ELEVON	REFERENCE INFORMATION
(VEL012)	ARC 87-747 DAS3C B C M F VI V	0.00	.000	-11.700	.000	SREF 2.4210 SQ.FT.
(VEL013)	ARC 87-747 DAS3C B C M F VI V	10.000	.000	-11.700	.000	LREF 14.2440
(VEL014)	ARC 87-747 DAS3C B C M F VI V	20.000	.000	-11.700	.000	BREF 28.1004
						YREF 32.3013
						YREF .0000
						ZREF 11.2500
						SCALE .0000

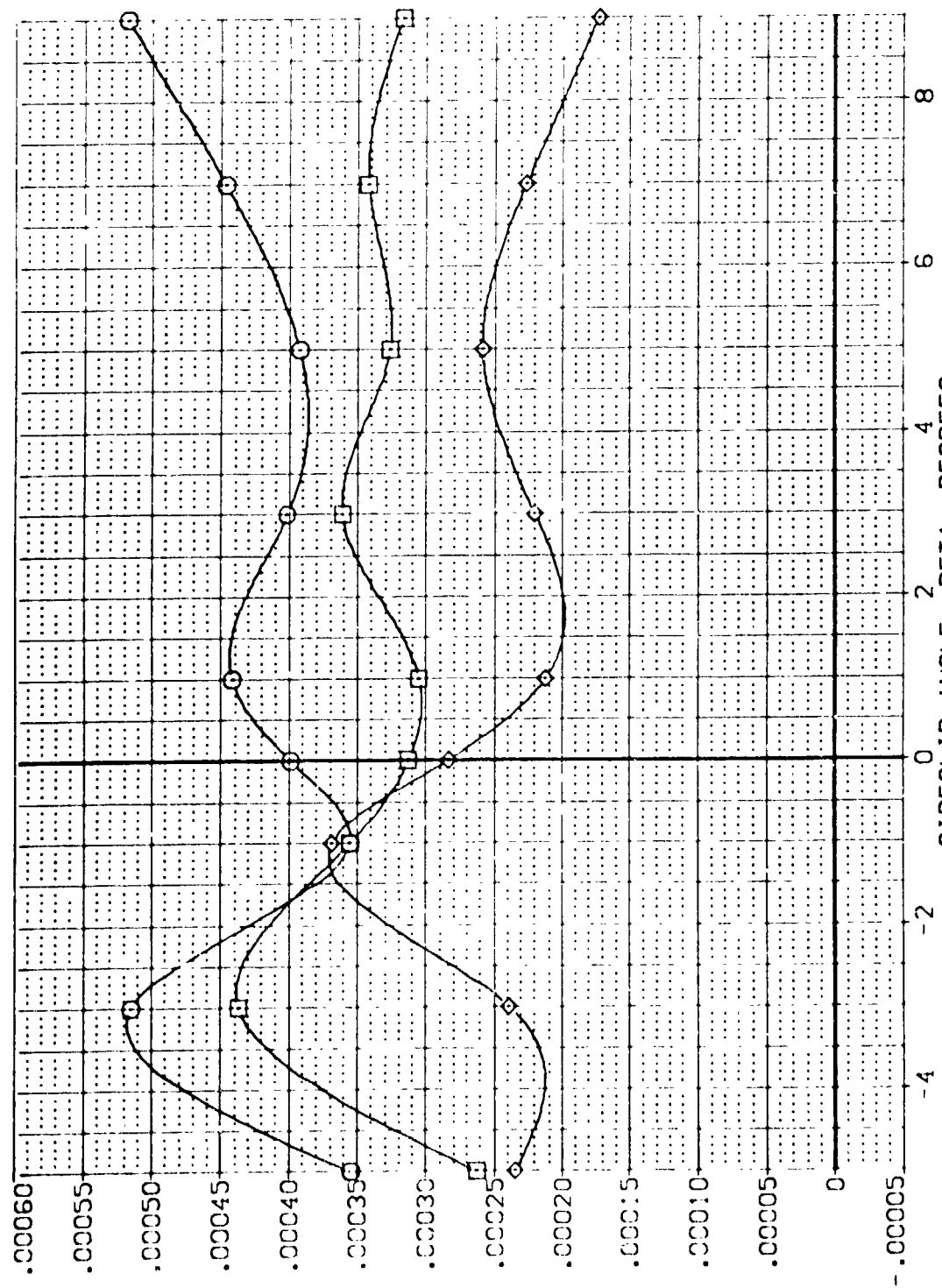


FIG. 28 SPEEDBRAKE DERIVATIVES, 55 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

(B)MACH = 3.00



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BDF LAP    ELEVATION    REFERENCE INFORMATION

(VELOS)	ARC 87-747 BASSE B C H F VI V	0.000	0.000	-11.700	.000	SREF	2.4210	50. FT.
(VELO40)	ARC 87-747 BASSE B C H F VI V	10.000	0.000	-11.700	.000	LREF	14.2440	IN.
(VELO11)	ARC 87-747 BASSE B C H F VI V	20.000	0.000	-11.700	.000	BREF	28.1004	IN.
						XREF	32.3010	IN.
						YREF	0.0000	IN.
						ZREF	11.2500	IN.
						SCALE	.0300	SCALE

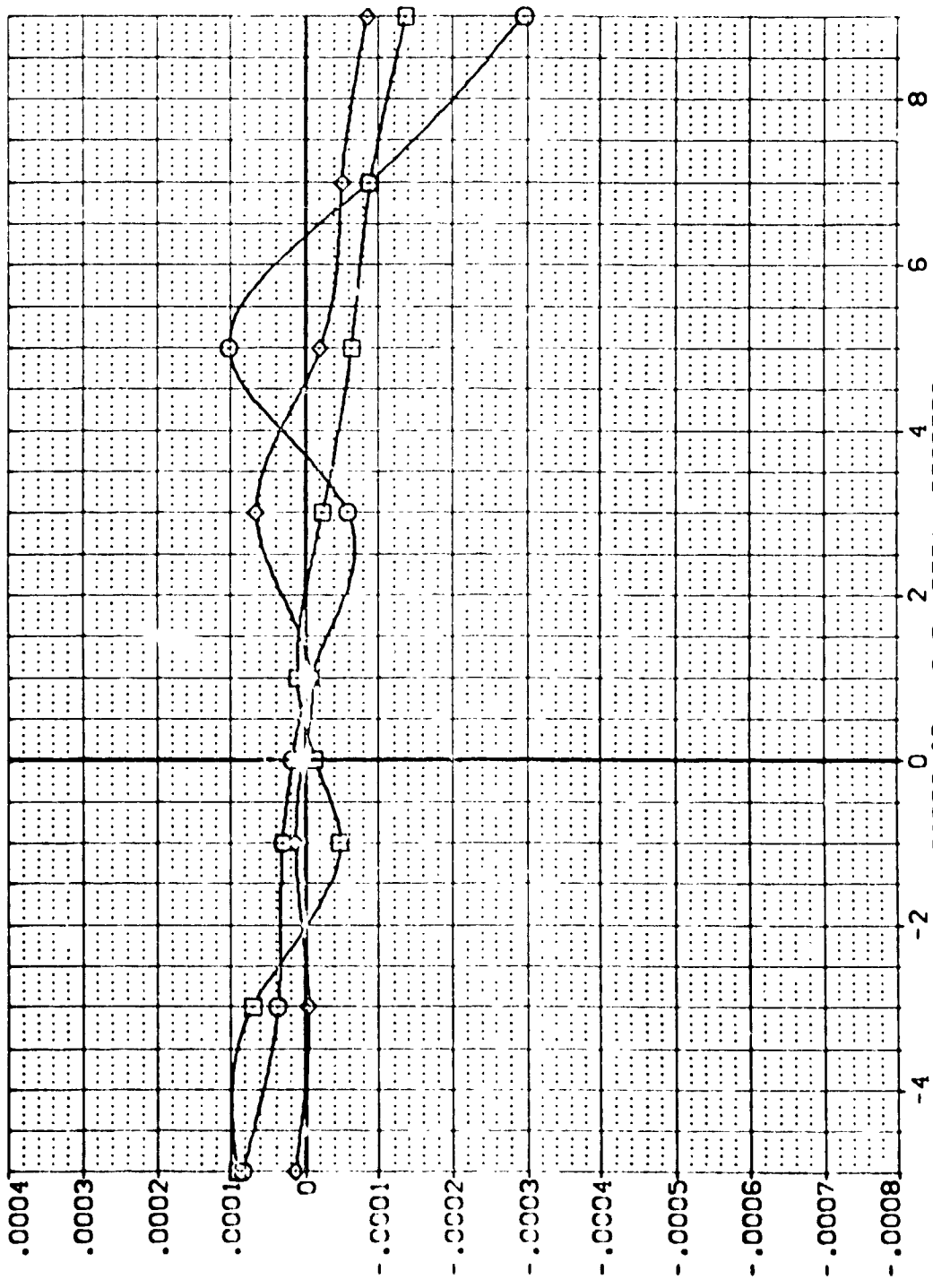


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT. (BASELINE = 25 DEGS.)

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RJODDER	BDF LAP	ELEVON	REFERENCE INFORMATION
ARC 87-747	DA53C B C M F V	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
ARC 87-747	DA53C B C M F V	10.000	.000	-11.700	.000	LREF 14.2440 IN.
ARC 87-747	DA53C B C M F V	20.000	.000	-11.700	.000	BREF 28.1004 IN.
						AMBD 32.3010 IN.
						YMBD 11.2500 IN.
						SCALE .0300

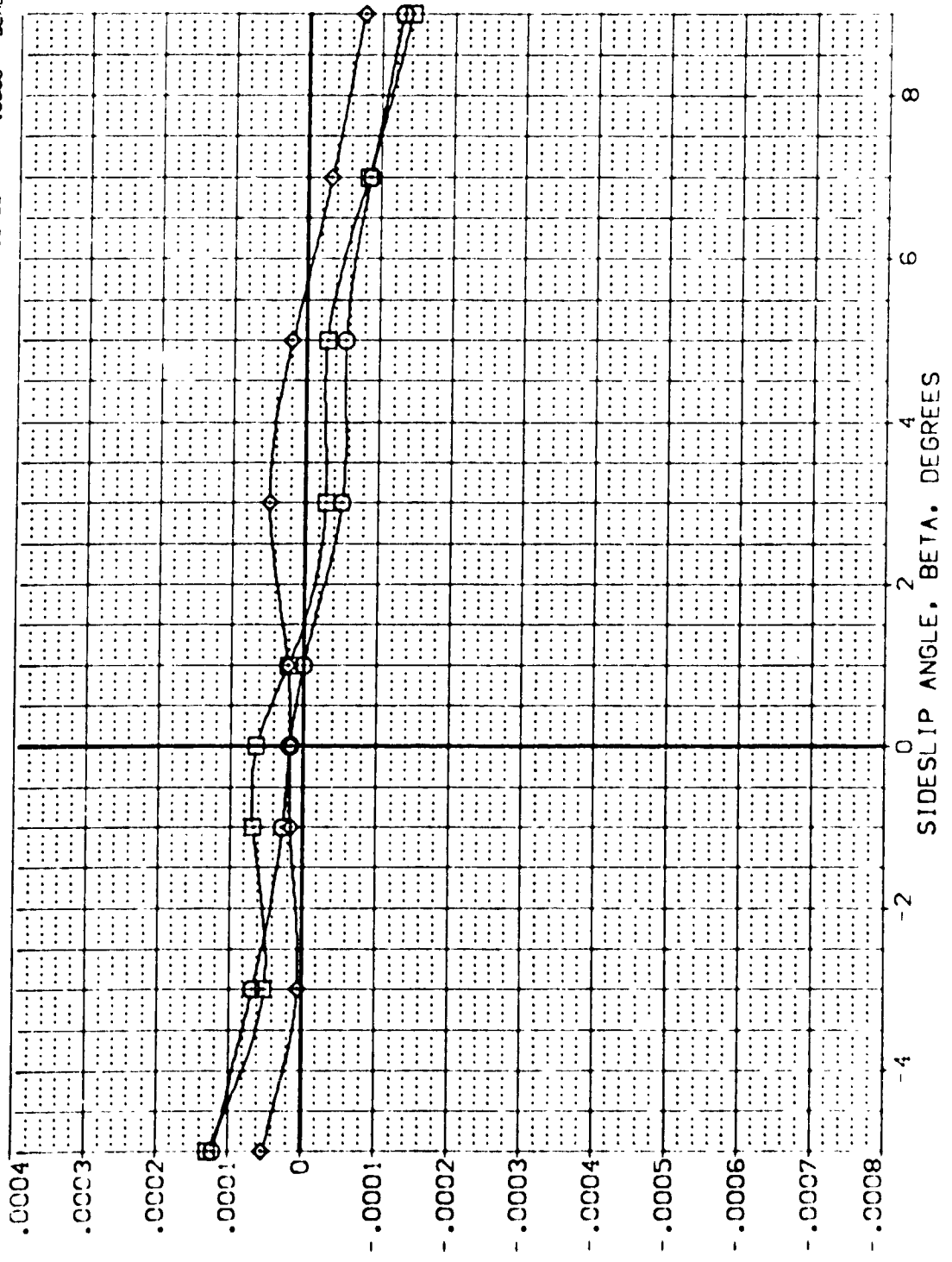


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT. (BASELINE = 25 DEGS.)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
[V-038]	ARC 87-747 BASIC B C M F V	10.000	.000	-11.700	.000	SREF 2.4210 SC.FT.
[V-039]	ARC 87-747 BASIC B C M F V	10.000	.000	-11.700	.000	LRFF 14.7440 IN.
[V-040]	ARC 87-747 BASIC B C M F V	20.000	.000	-11.700	.000	SRFF 78.1074 IN.
[V-041]	ARC 87-747 BASIC B C M F V	20.000	.000	-11.700	.000	Y-REF 32.3010 IN.
						7-REF 11.2500 IN.
						SCALE .0300 SCALE

SIDE FORCE COEFF. DERIV. WITH SPEED BRAKE OFF. DCY/DS. PER DEG

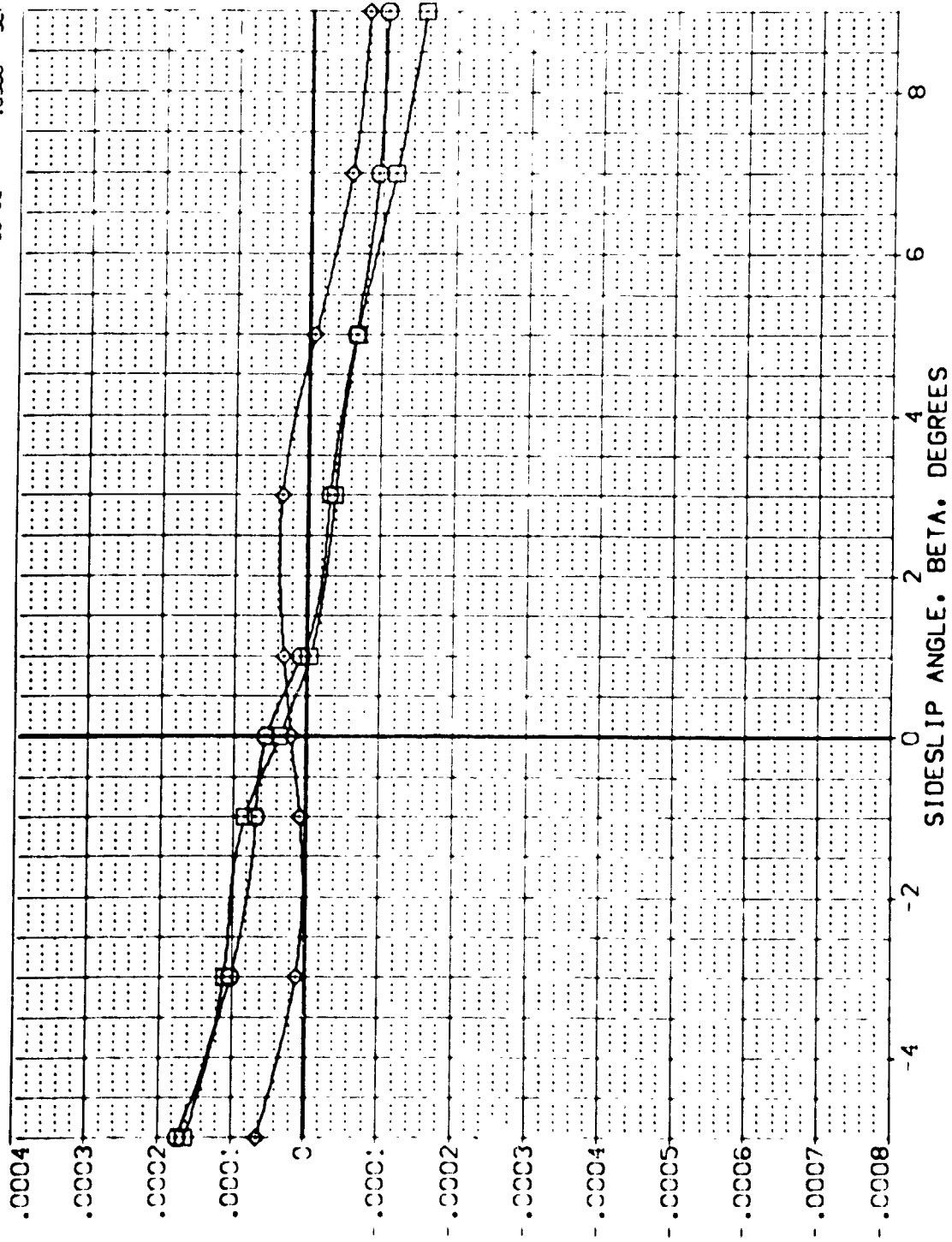


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

(CY/MACH = 3.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOFLAP	ELEVON	REFERENCE INFORMATION
ARC 87-747	BASEC B C M F V	.000	.000	-11.700	.000	SREF 2.4210 50.FT.
ARC 87-747	BASEC B C M F V	10.000	.000	-11.700	.000	LREF 14.2440
ARC 87-747	BASEC B C M F V	20.000	.000	-11.700	.000	BREF 28.1004
						XMRD 32.3010
						YMRD .0000
						ZMRD 11.2500
						SCALE .0300

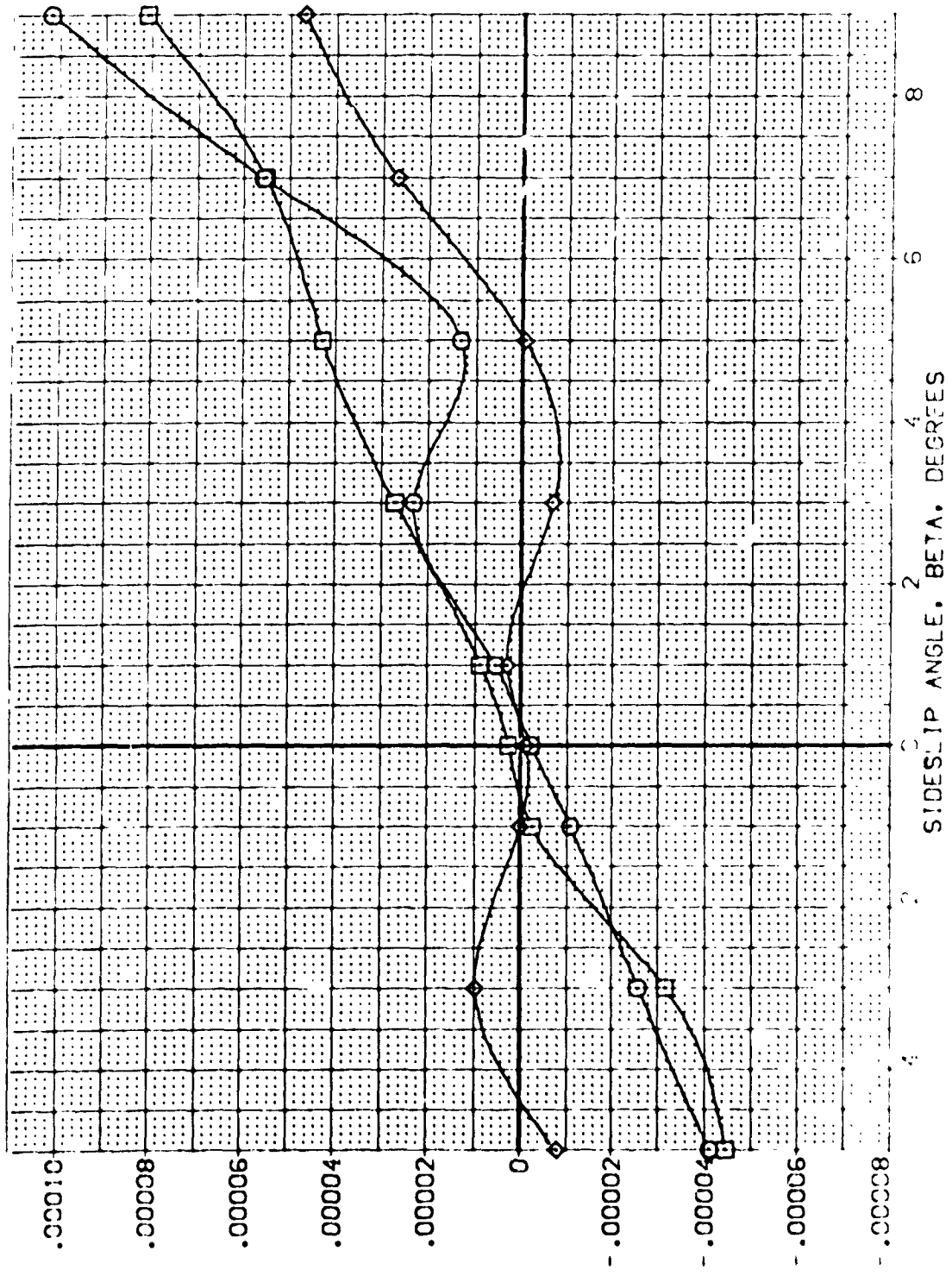


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT. (BASELINE = 25 DEGS.)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOLAP	ELEVON	REFERENCE INFORMATION
(V. 038)	ARC 87-747 DASEC B C M F V	.000	.000	.000	.000	SREF 2.5210 SC.F.
(V. 040)	ARC 87-747 DASEC B C M F V	10.000	.000	.700	.000	REF 14.2440
(V. 041)	ARC 87-747 DASEC B C M F V	20.000	.000	.700	.000	BREF 28.1004
						A-REF 32.3010
						Y-REF .0000
						Z-REF .0000
						SCALE 11.2500
						SCALE

YAWING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCYNOS. PER DEG

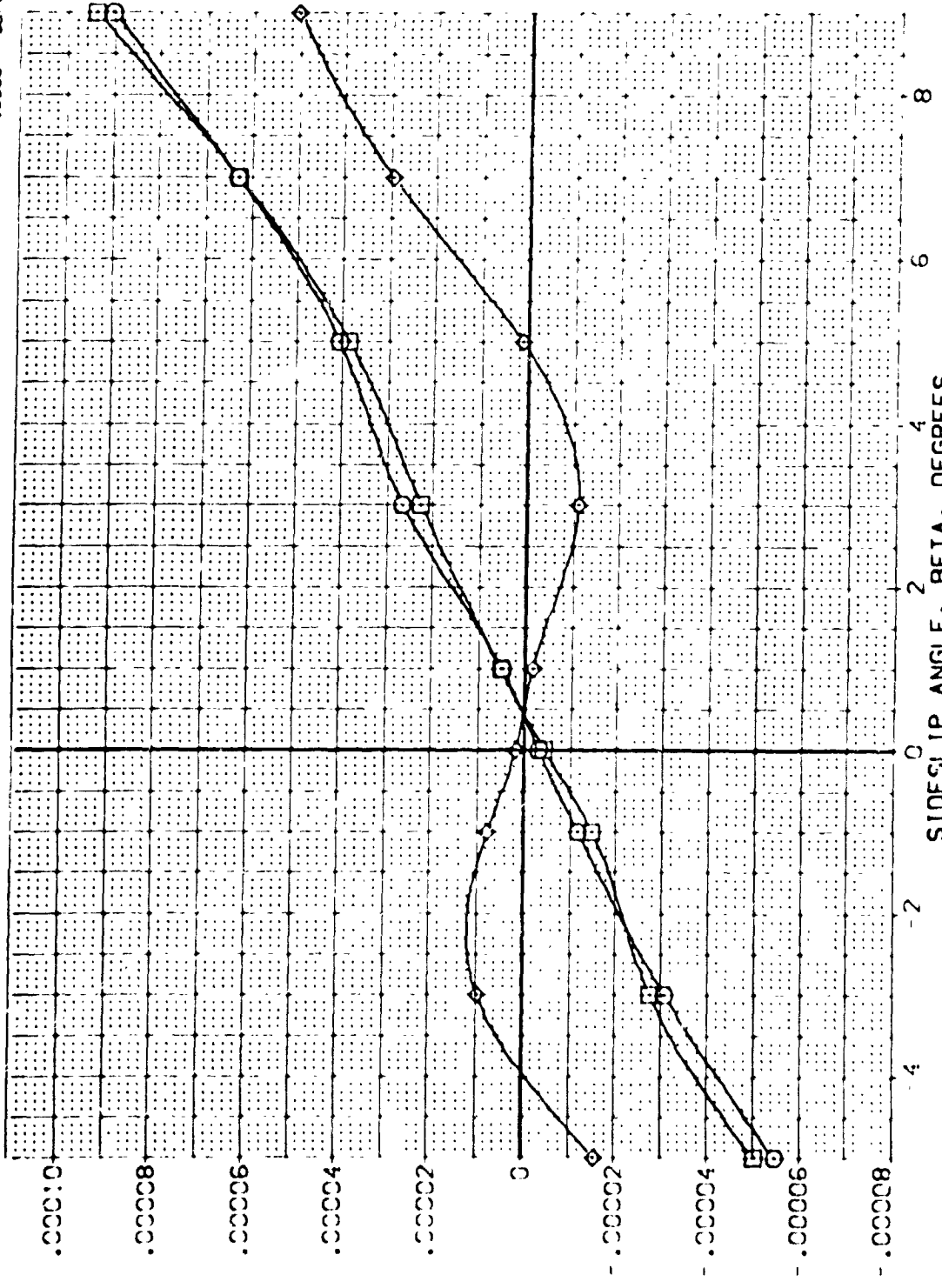


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT.(BASELINE = 25 DEGS.)



YAWING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCYNDS. PER DEG

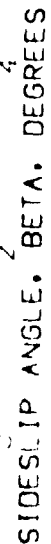


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT. (BASELINE = 25 DEGS.)

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ROLLING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCBLDS. PER DEG

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ALPHA		RUDDER		BOFLAP		ELEVON		REFERENCE INFORMATION	
[VEL029]	ARC 87-747	BASIC	B C M F VI V	0.000	0.000	-11.700	0.000	2.4210	50.000	SRF	2.4210	50.000	
[VEL040]	ARC 87-747	BASIC	B C M F VI V	10.000	0.000	-11.700	0.000	14.2440	22.000	LRFF	14.2440	22.000	
[VEL041]	ARC 87-747	BASIC	B C M F VI V	20.000	0.000	-11.700	0.000	28.1004	22.000	BRFF	28.1004	22.000	
								32.3010	22.000	VRFF	32.3010	22.000	
								11.2500	22.000	ZRFF	11.2500	22.000	
								11.2500	22.000	SCALE	11.2500	22.000	

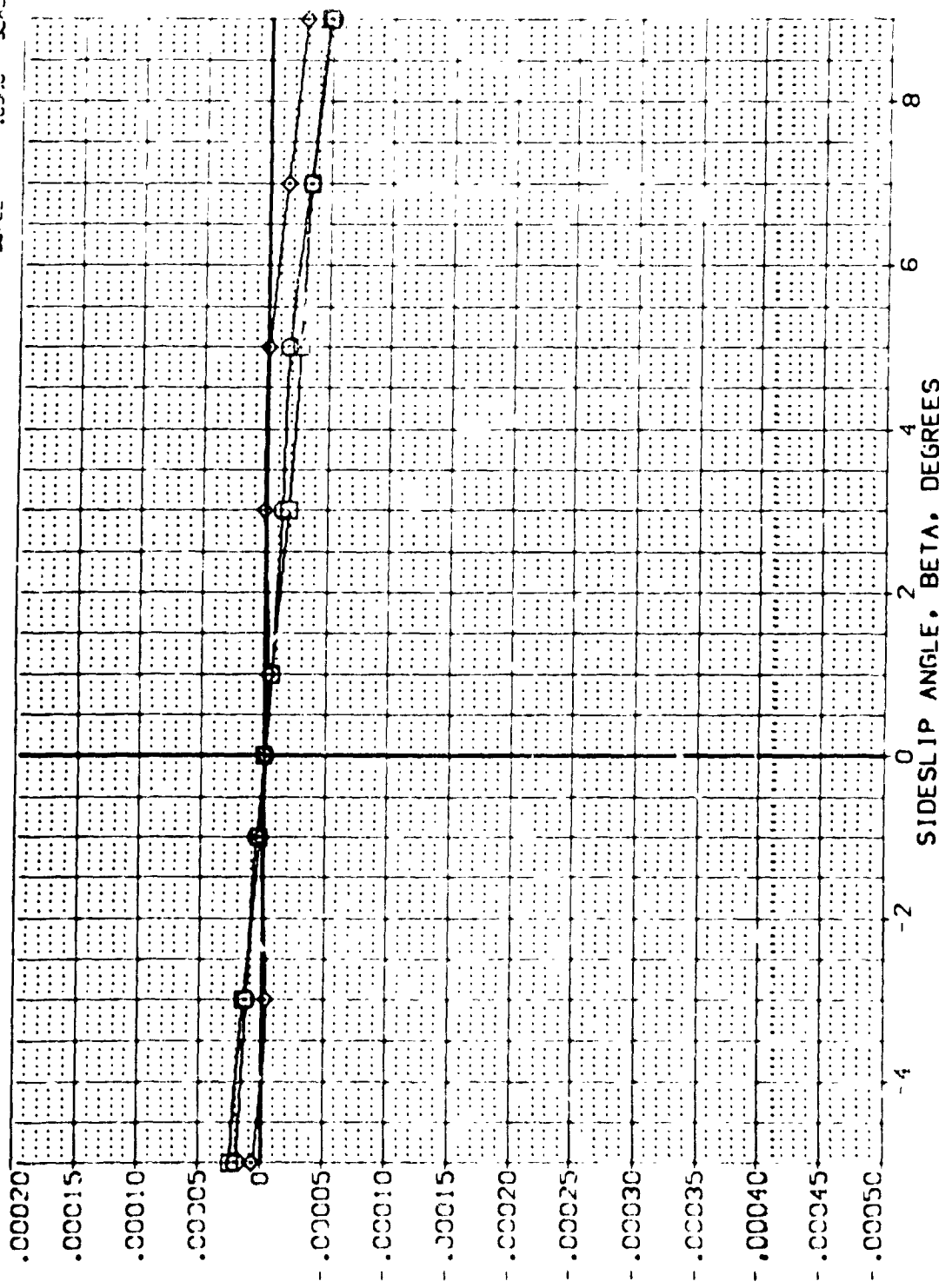


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

(A)MAC = 2.50

ROLLING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCBLDS, PER DEG

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
(VEL029)	ARC 87-747 CAS3C B C M F V1 V	.000	.000	-11.700	.000	SREF 2.4210 50.FT.
(VEL040)	ARC 87-747 CAS3C B C M F V1 V	10.000	.200	-11.700	.000	LREF 14.2440 IN.
(VEL041)	ARC 87-747 CAS3C B C M F V1 V	20.000	.000	-11.700	.000	BREF 28.1004 IN.
						XREF 32.3010 IN.
						YREF .0000 IN.
						ZREF 11.2500 IN.
						SCALE .0300

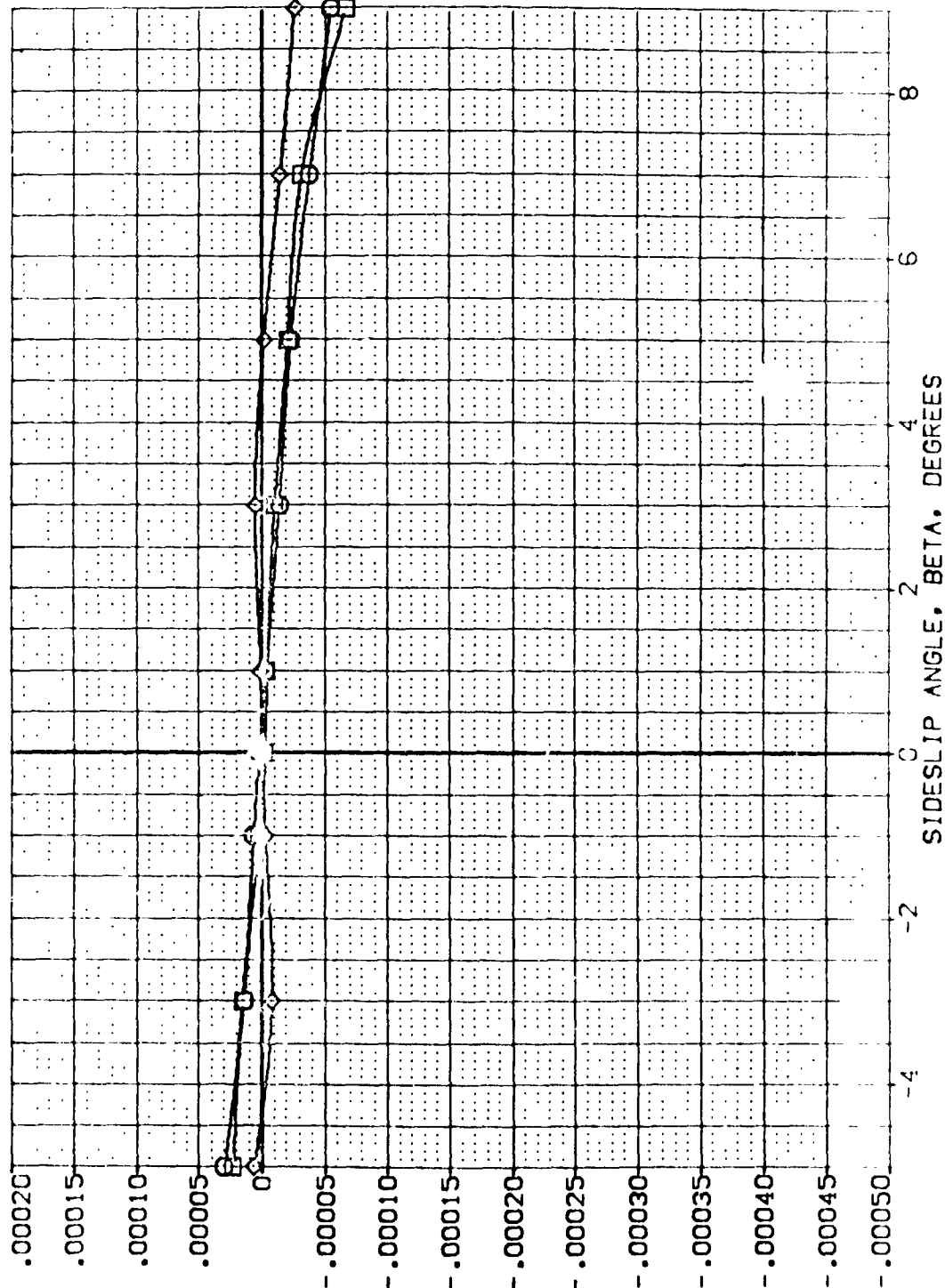


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT. (BASELINE = 25 DEGS.)

(B) V40 = 3.00

ROLLING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL., DCBLOS, PER DEG

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BOFLAP	ELEVON	REFERENCE INFORMATION
{VELOCZ}	□	ARC 87-747 C453C B C M F V I V	.000	.000	-11.700	.000	SREF 2.4210 SQ.FT.
{VELOCZ}	□	ARC 87-747 C453C B C M F V I V	10.000	.000	-11.700	.000	LREF 14.2440 IN.
{VELOCZ}	□	ARC 87-747 C453C B C M F V I V	20.000	.000	-11.700	.000	BREF 28.1004 IN.
							A470 32.5010 IN.
							Y470 .5000 IN.
							Z470 11.2300 IN.
							SCALE .0300

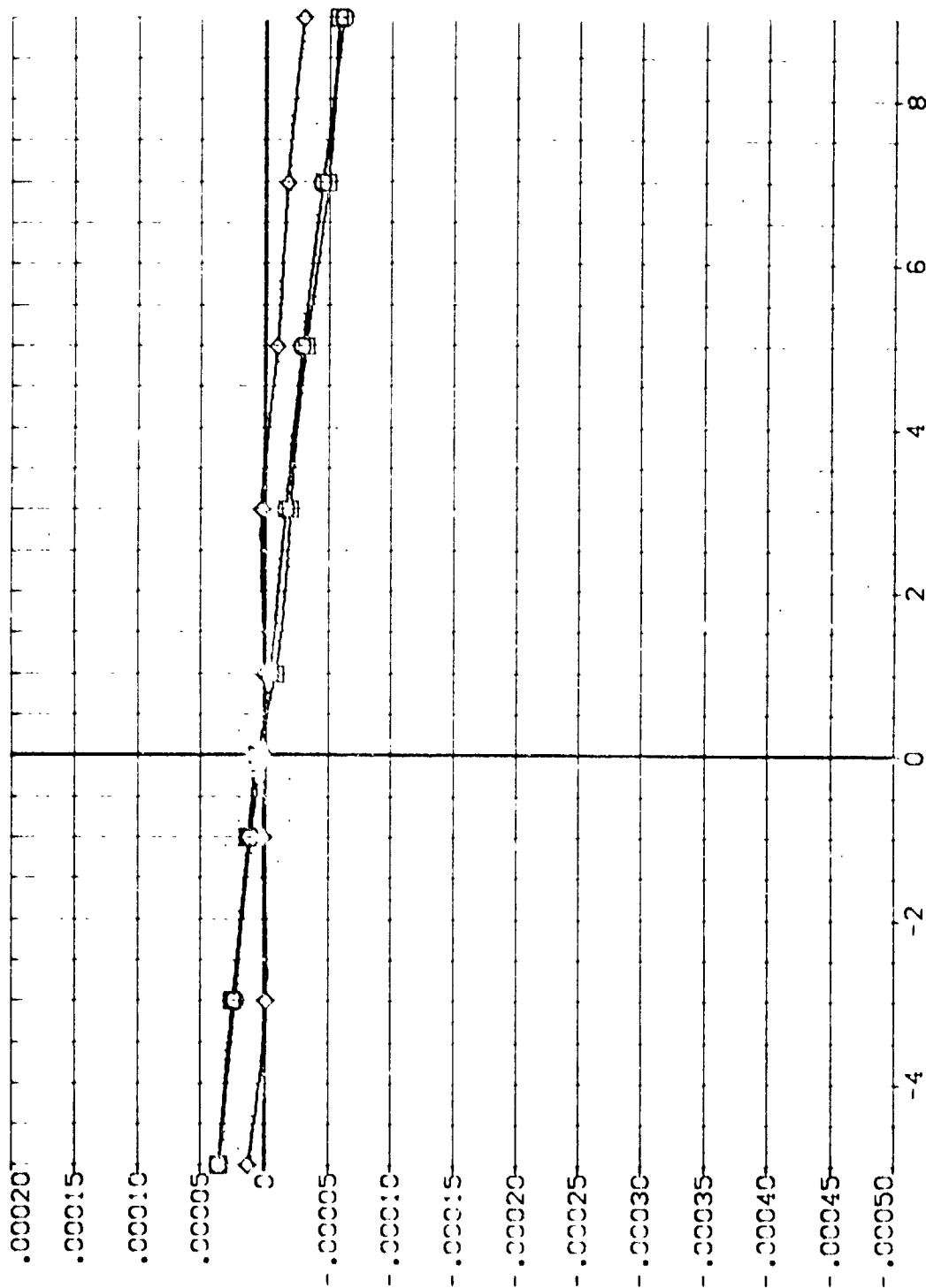


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

(C) VACH = 3.50

REF	2.4210	SCALE
REF	14.7640	
REF	28.1004	
YREF	32.3110	
YREF	33.0000	
YREF	11.5000	
SCALE	.0000	SCALE

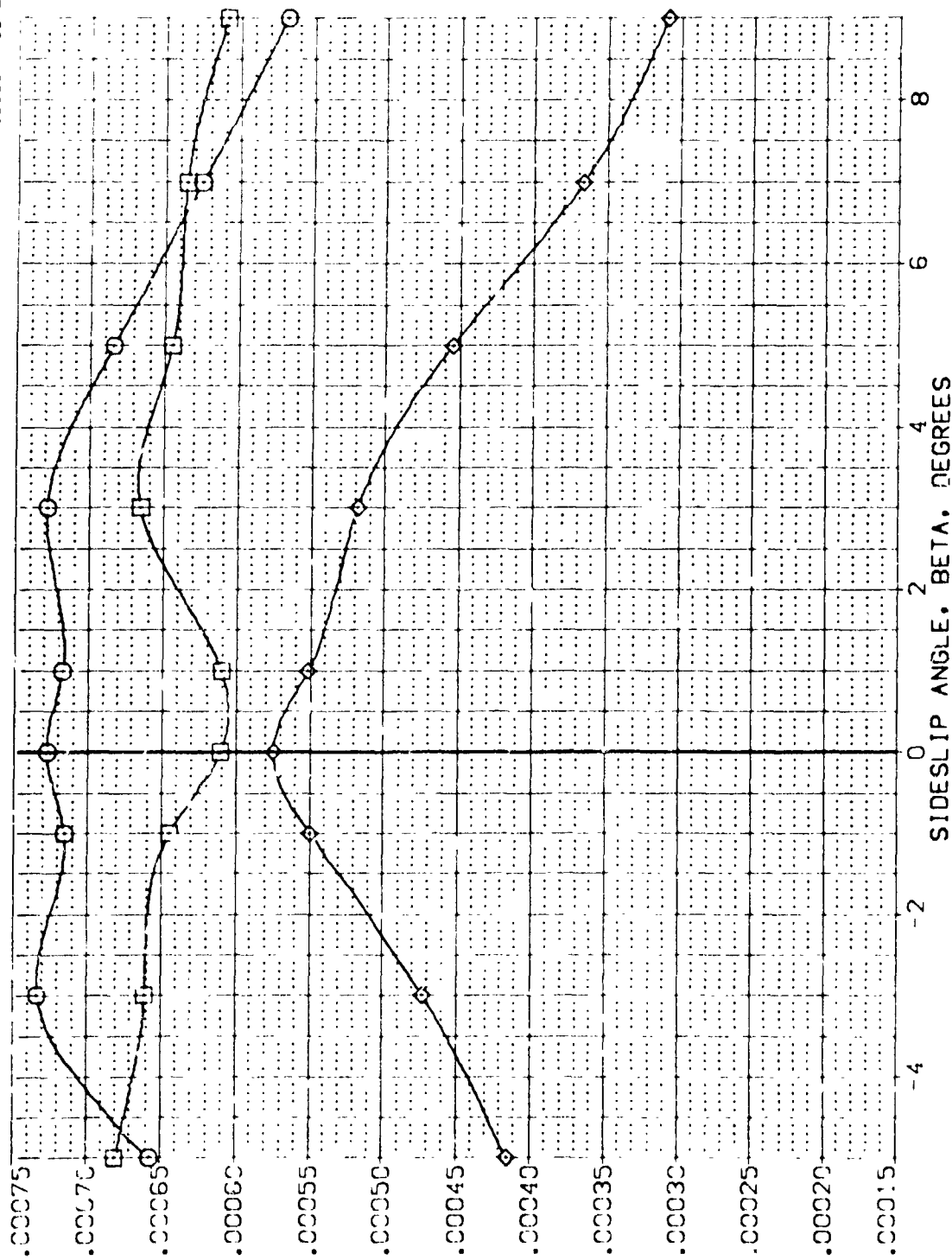


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

$$[A]_{\text{WACH}} = 2.50$$

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PITCHING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL. • DCLMDS. PER DEG

DATA SET SYMBOL	CONF	IGURATION	DESCRIPTION	ALPHA	RUDER	BOFLAP	ELEVON	REFERENCE INFORMATION
(VELO29)	Q	ARC 87-747	BAS3C B C M F VI V	.000	.000	-11.700	.000	SREF 2.4210 SO.FI.
(VELO40)	Q	ARC 87-747	BAS3C B C M F VI V	10.000	.000	-11.700	.000	LRP 14.244C
(VELO41)	Q	ARC 87-747	BAS3C B C M F VI V	20.000	.000	-11.700	.000	BRF 28.1004
								YMRP 32.3010
								ZMRP .0000
								SCALE 11.2500 IN.
								SCALE .0300

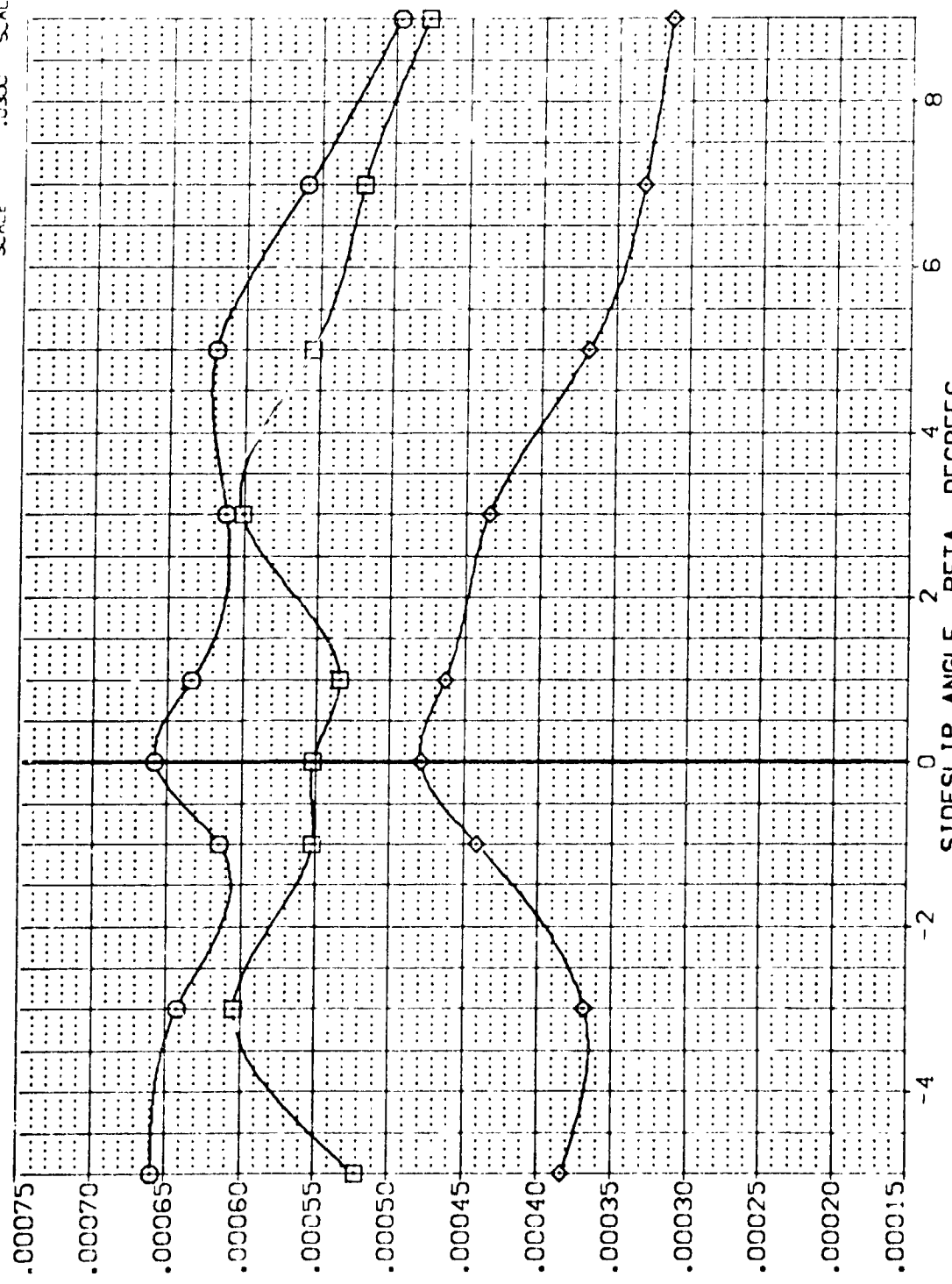


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT. (BASELINE = 25 DEGS.)

(B)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	ELEVON	REFERENCE INFORMATION
ARC 87-747	CAS3C B C M F VI V	.000	.000	-11.700	.000	SREF 2.4210
ARC 87-747	CAS3C B C M F VI V	10.000	.000	-11.700	.000	REF 14.2440
ARC 87-747	CAS3C B C M F VI V	20.000	.000	-11.700	.000	SPREF 28.0004
						YMRP 32.3010
						ZMRP 11.2500
						SCALE .0300

PITCHING MOMENT COEFF. DERIV. WITH SPEED BRAKE DEFL. • DCLMDS. PER DEG

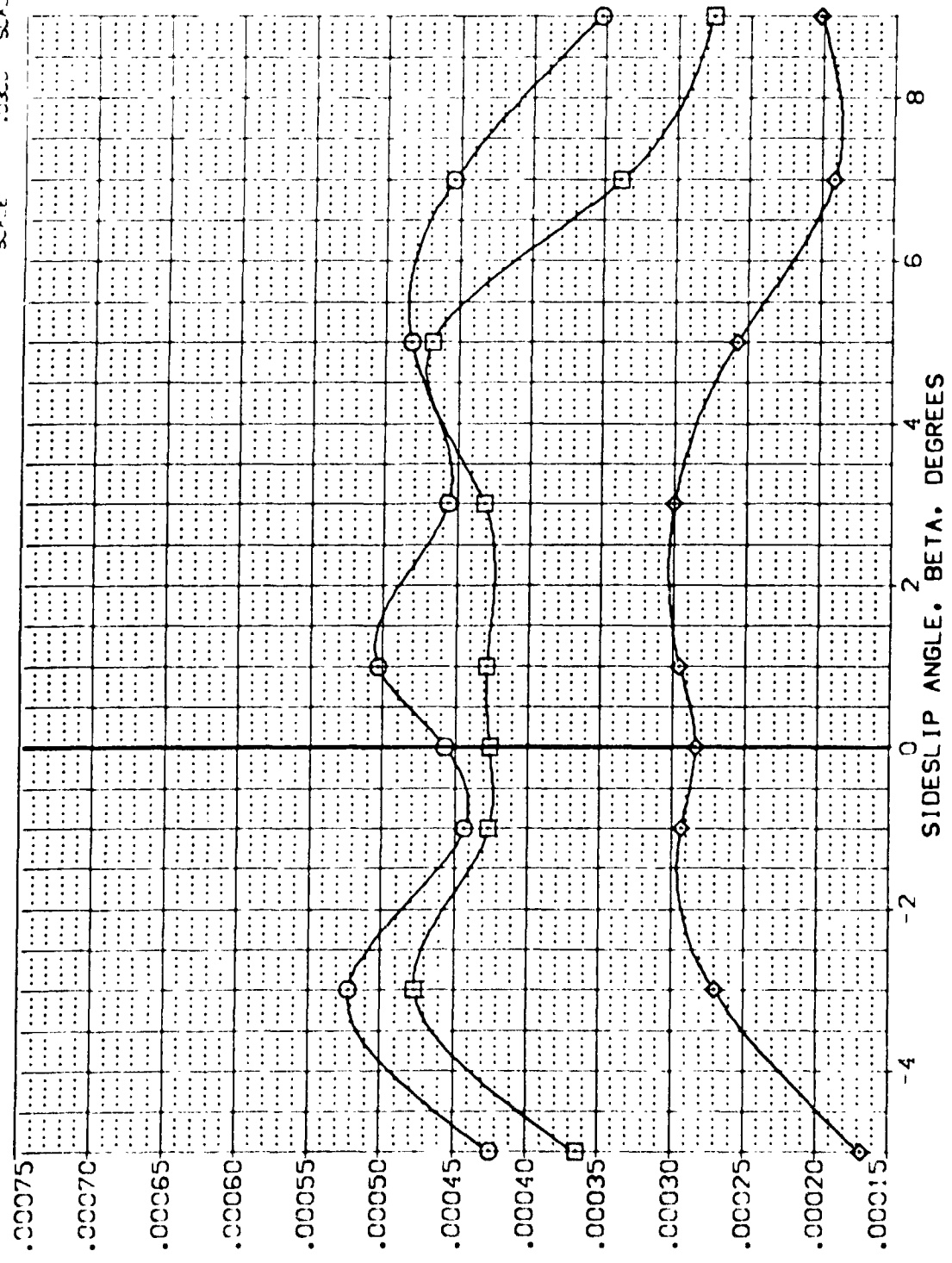


FIG. 29 SPEEDBRAKE DERIVATIVES, 85 DEGS. DEFLECT.(BASELINE = 25 DEGS.)

(C)MAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ATLIRON	BDF LAP	SPDRBK	REFERENCE INFORMATION
[YEL003]	ARC 87-747 OAS3C B C M F V I V	15.000	.000	-11.700	55.000	SREF 2.4210 SC.F.T.
[YEL001]	ARC 87-747 OAS3C B C M F V I V	.000	.000	-11.700	55.000	UREF 14.7440
[YEL002]	ARC 87-747 OAS3C B C M F V I V	-10.000	.000	-11.700	55.000	BOREF 28.1004
[YEL009]	ARC 87-747 OAS3C B C M F V I V	-20.000	.000	-11.700	55.000	XMBP 32.3010
[YEL023]	ARC 87-747 OAS3C B C M F V I V	-40.000	.000	-11.700	55.000	ZMBP .0000
						SCALE 11.2500
						SCALE .0300

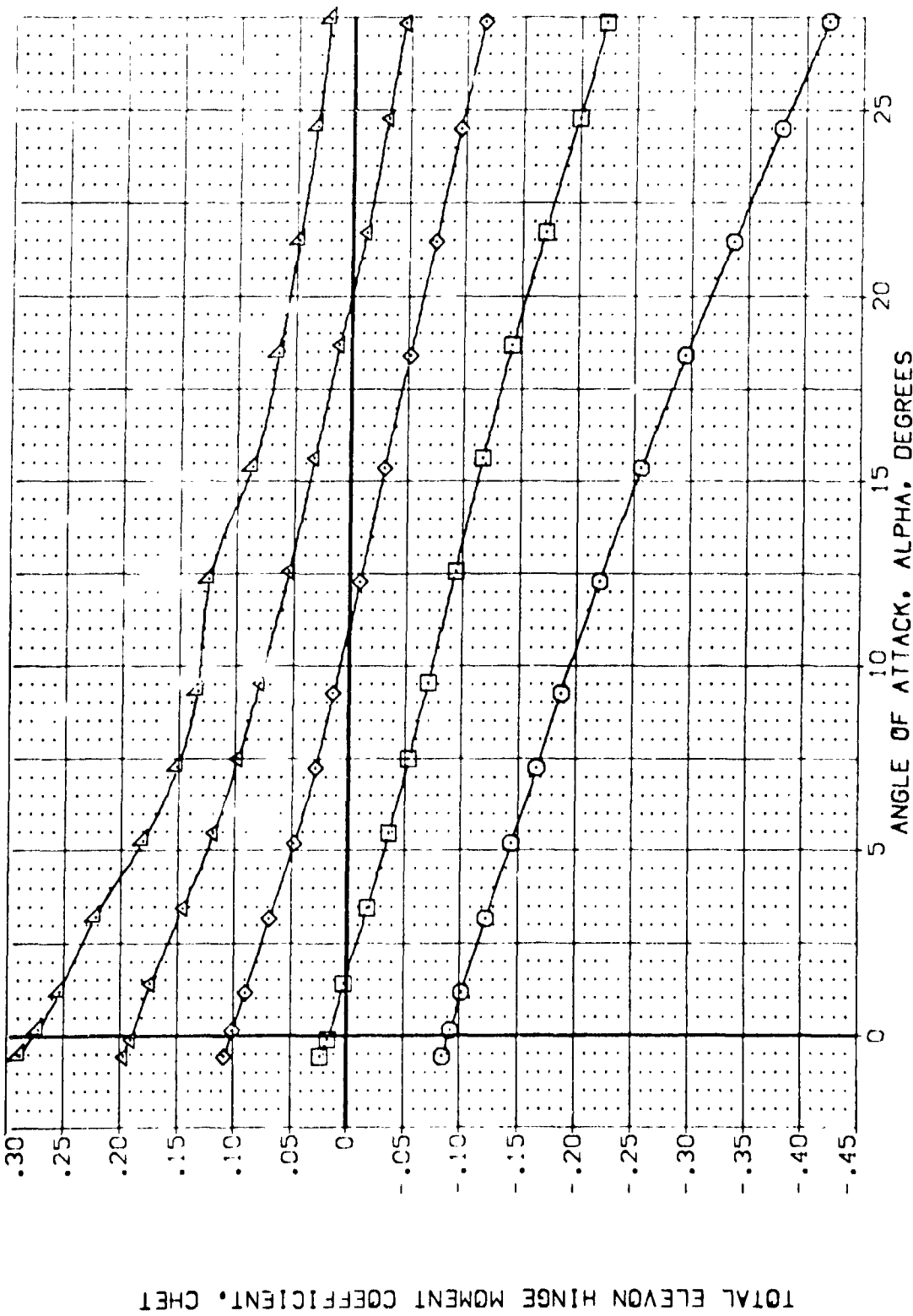


FIG. 30 ELEVON HINGE MOMENTS

CADMAC = 2.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (YEL003) ABC 87-747 CAS3C B C C M F V V  
 (YEL011) ABC 87-747 CAS3C B C C M F V V  
 (YEL002) ABC 87-747 CAS3C B C C M F V V  
 (YEL019) ABC 87-747 CAS3C B C C M F V V  
 (YEL023) ABC 87-747 CAS3C B C C M F V V

101. RV/L  
 101. RV/L  
 101. RV/L  
 101. RV/L  
 101. RV/L

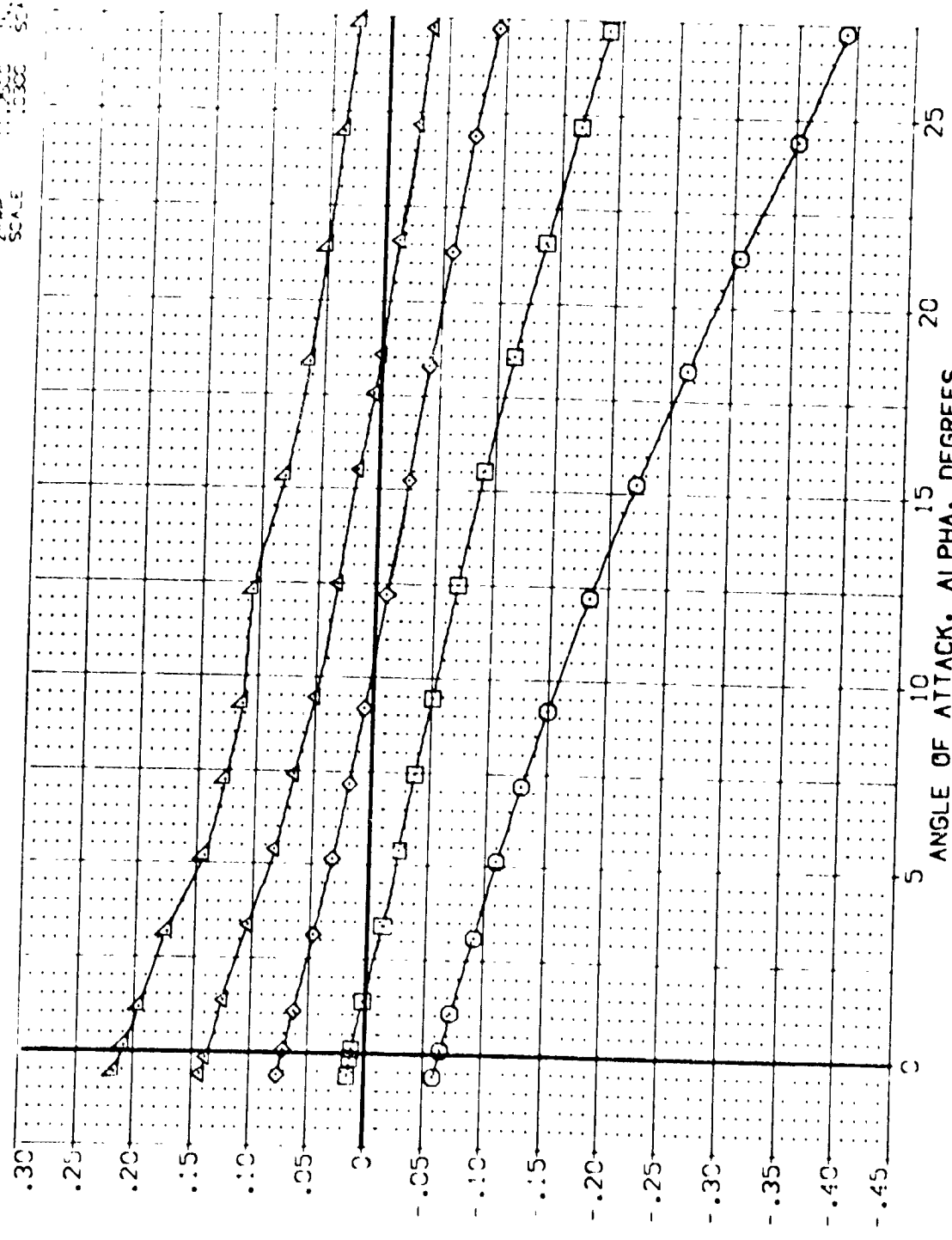
ELEVON 15.000  
 15.000  
 -10.000  
 -20.000  
 -40.000

AILEON .000  
 .000  
 .000  
 .000  
 .000

BOFLAP 700  
 700  
 700  
 700  
 700

SP300K 55.000  
 55.000  
 55.000  
 55.000  
 55.000

REFERENCE INFORMATION  
 SREF 2.4212 SQ.FT  
 REF 14.2440  
 RREF 39.1004  
 RREF 37.3002  
 RREF 30.0000  
 RREF 20.0000  
 SCALE 10000



TOTAL ELEVON HINGE MOMENT COEFFICIENT, CHET

FIG. 30 ELEVON HINGE MOMENTS

(B)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPODBRK	REFERENCE INFORMATION
[VEL003]	ARC 87-747 D453C B C M F VI V	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[VEL011]	ARC 87-747 D453C B C M F VI V	.000	.000	-11.700	55.000	LRP 14.2440
[VEL002]	ARC 87-747 D453C B C M F VI V	-10.000	.000	-11.700	55.000	BRP 28.1004
[VEL019]	ARC 87-747 D453C B C M F VI V	-20.000	.000	-11.700	55.000	YMRP 32.3010
[VEL023]	ARC 87-747 D453C B C M F VI V	-40.000	.000	-11.700	55.000	ZMRP 11.7500
						SCALE .0300

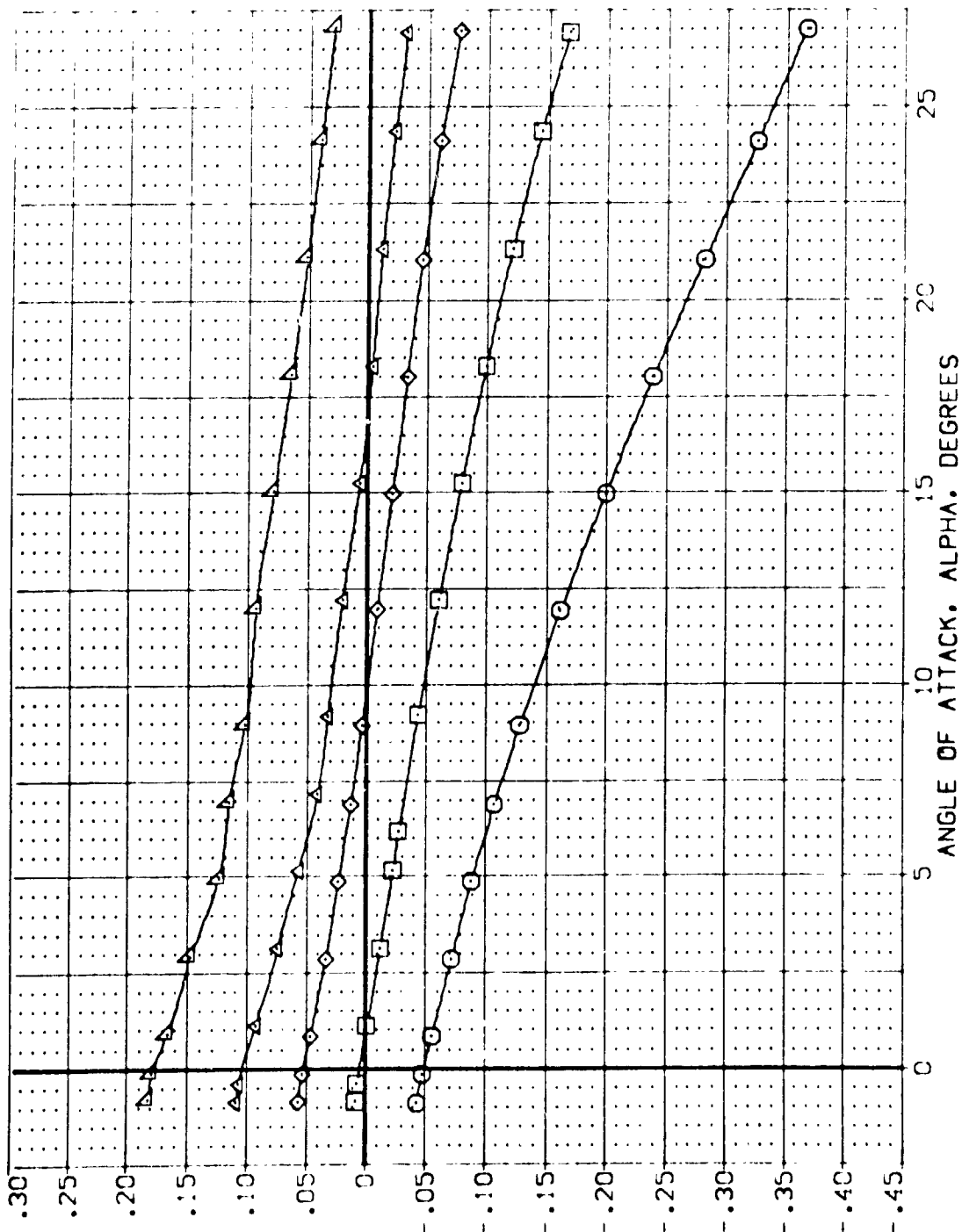


FIG. 30 ELEVON HINGE MOMENTS

(C)<sup>MACH</sup> = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ATLIRON	BOFLAP	SPODBAY	REFERENCE INFORMATION
003	ARC 87-747 CAS3C B C M F V1 V	15.000	.000	-11.700	55.000	SPREF 2.4210 SCALE
002	ARC 87-747 CAS3C B C M F V1 V	.000	.000	-11.700	55.000	SPREF 14.3410 SCALE
002	ARC 87-747 CAS3C B C M F V1 V	-10.000	.000	-11.700	55.000	SPREF 28.1200 SCALE
002	ARC 87-747 CAS3C B C M F V1 V	-20.000	.000	-11.700	55.000	SPREF 30.1300 SCALE
003	ARC 87-747 CAS3C B C M F V1 V	-40.000	.000	-11.700	55.000	SPREF 11.7200 SCALE

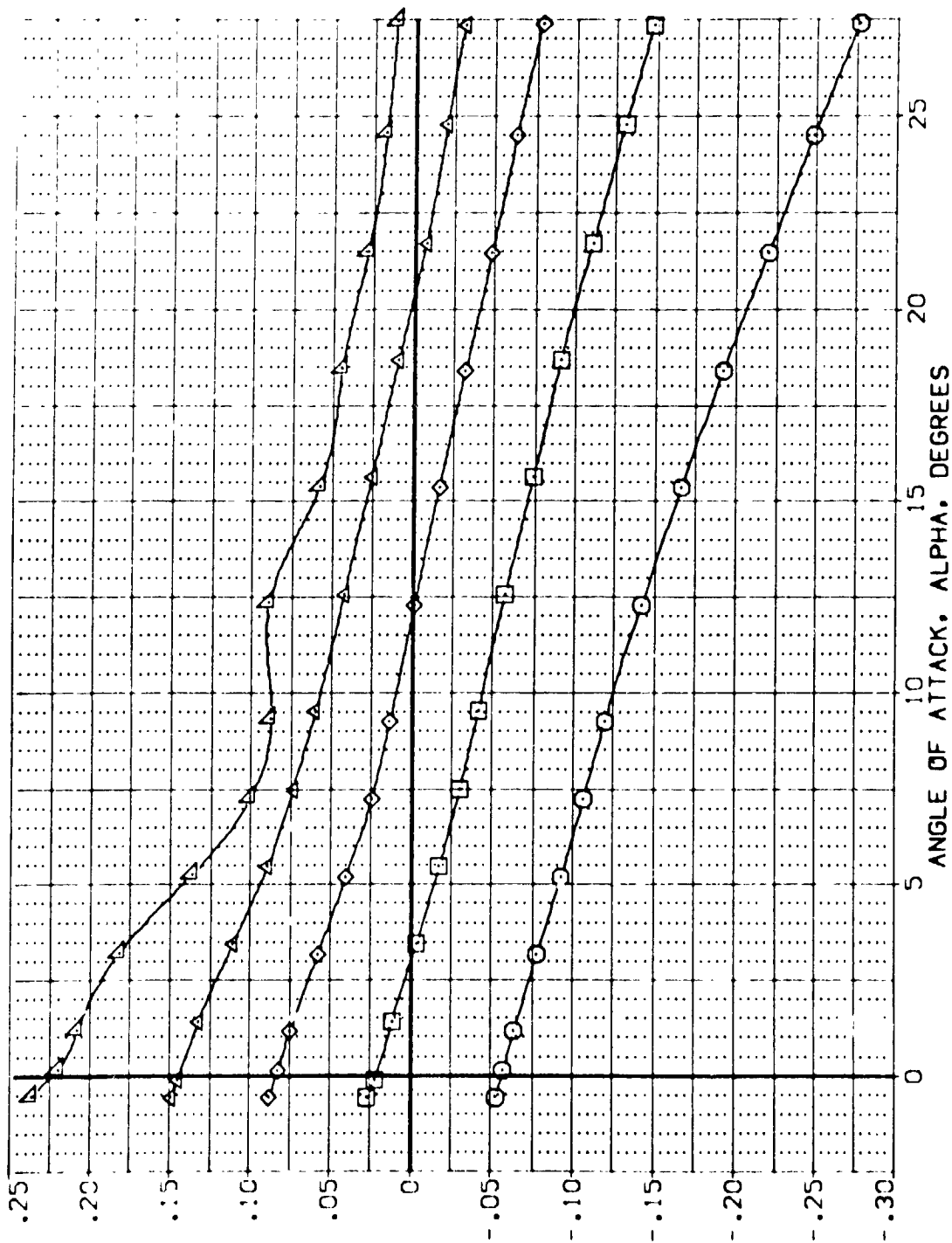


FIG. 30 ELEVON HINGE MOMENTS

(M)MACH = 2.50

DATA SET SYMBOL	CONF	DESCRIPTION	VELOCITY	ANGLE	ELEVON	AIRLON	BOFLAP	SPEED	REFERENCE INFORMATION
[VEL003]	ARC	87-747 CAS3C B C M F V	V	NON	15.000	.000	-11.700	55.000	SREF 2.4210 SCF 1
[VEL011]	ARC	87-747 CAS3C B C M F V	V	NON	.000	.000	-11.700	55.000	LREF 14.2440 SCF 2
[VEL002]	ARC	87-747 CAS3C B C M F V	V	NON	-10.000	.000	-11.700	55.000	BRF 28.000 SCF 3
[VEL019]	ARC	87-747 CAS3C B C M F V	V	NON	-20.000	.000	-11.700	55.000	YREF 37.000 SCF 4
[VEL023]	ARC	87-747 CAS3C B C M F V	V	NON	-40.000	.000	-11.700	55.000	ZREF 11.700 SCF 5
									SCALE 11.000 SCF 6

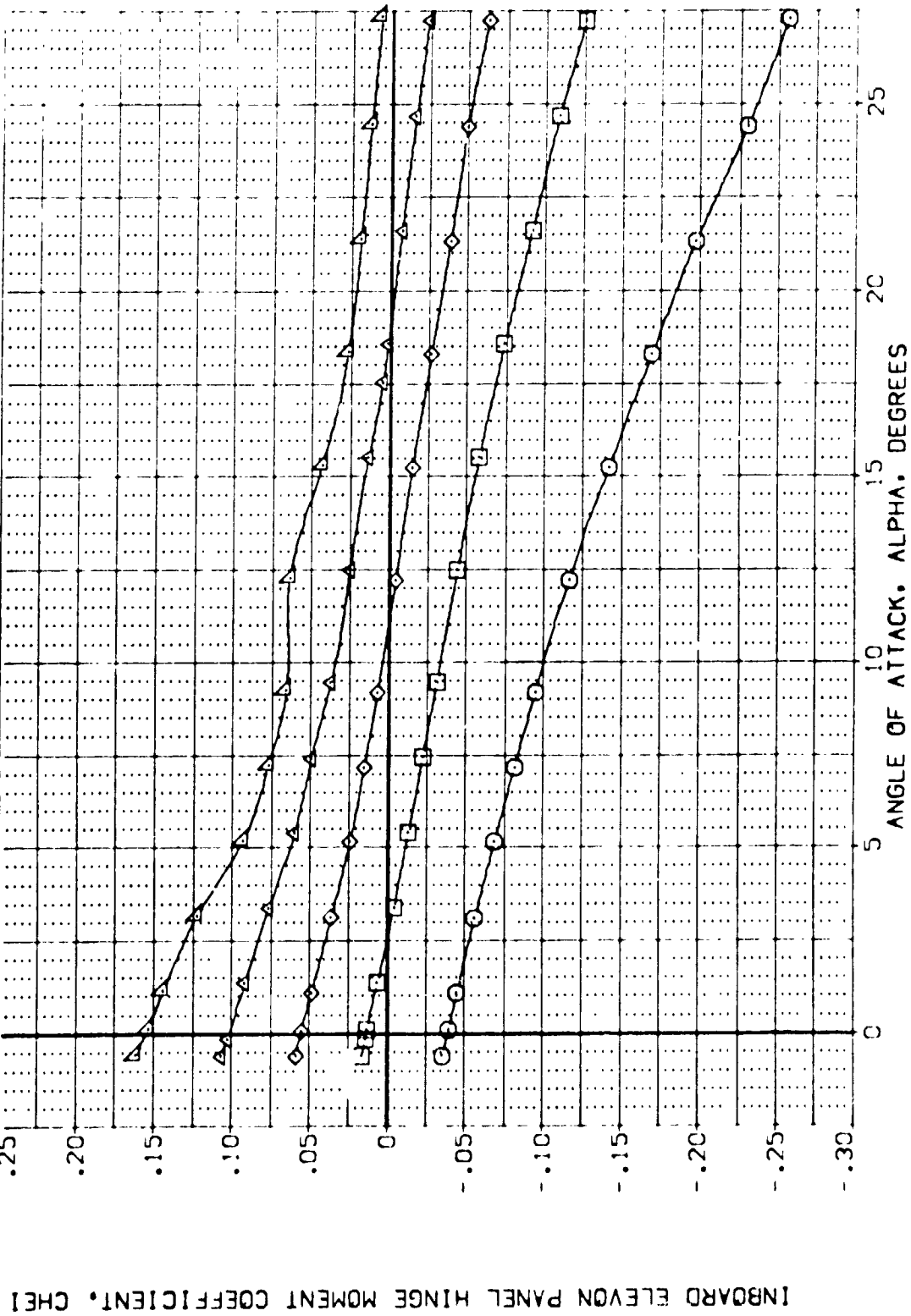


FIG. 30 ELEVON HINGE MOMENTS

(B)  $\gamma_{AC} = 3.00$

ELEVATION	AIRFLOW	BOF LAP	SPDRY	REFERENCE INFORMATION
15.000	.000	-11.700	55.000	SRF 2.4210 SQ.FT.
16.000	.000	-11.700	55.000	SRF 4.2340
17.000	.000	-11.700	55.000	SRF 28.1304
18.000	.000	-11.700	55.000	SRF 32.3000
19.000	.000	-11.700	55.000	SRF 32.3000
20.000	.000	-11.700	55.000	SRF 11.2500
21.000	.000	-11.700	55.000	SRF 11.2500
22.000	.000	-11.700	55.000	SRF 11.2500
23.000	.000	-11.700	55.000	SRF 11.2500
24.000	.000	-11.700	55.000	SRF 11.2500
25.000	.000	-11.700	55.000	SRF 11.2500
26.000	.000	-11.700	55.000	SRF 11.2500
27.000	.000	-11.700	55.000	SRF 11.2500
28.000	.000	-11.700	55.000	SRF 11.2500
29.000	.000	-11.700	55.000	SRF 11.2500
30.000	.000	-11.700	55.000	SRF 11.2500
31.000	.000	-11.700	55.000	SRF 11.2500
32.000	.000	-11.700	55.000	SRF 11.2500
33.000	.000	-11.700	55.000	SRF 11.2500
34.000	.000	-11.700	55.000	SRF 11.2500
35.000	.000	-11.700	55.000	SRF 11.2500
36.000	.000	-11.700	55.000	SRF 11.2500
37.000	.000	-11.700	55.000	SRF 11.2500
38.000	.000	-11.700	55.000	SRF 11.2500
39.000	.000	-11.700	55.000	SRF 11.2500
40.000	.000	-11.700	55.000	SRF 11.2500
41.000	.000	-11.700	55.000	SRF 11.2500
42.000	.000	-11.700	55.000	SRF 11.2500
43.000	.000	-11.700	55.000	SRF 11.2500
44.000	.000	-11.700	55.000	SRF 11.2500
45.000	.000	-11.700	55.000	SRF 11.2500
46.000	.000	-11.700	55.000	SRF 11.2500
47.000	.000	-11.700	55.000	SRF 11.2500
48.000	.000	-11.700	55.000	SRF 11.2500
49.000	.000	-11.700	55.000	SRF 11.2500
50.000	.000	-11.700	55.000	SRF 11.2500
51.000	.000	-11.700	55.000	SRF 11.2500
52.000	.000	-11.700	55.000	SRF 11.2500
53.000	.000	-11.700	55.000	SRF 11.2500
54.000	.000	-11.700	55.000	SRF 11.2500
55.000	.000	-11.700	55.000	SRF 11.2500
56.000	.000	-11.700	55.000	SRF 11.2500
57.000	.000	-11.700	55.000	SRF 11.2500
58.000	.000	-11.700	55.000	SRF 11.2500
59.000	.000	-11.700	55.000	SRF 11.2500
60.000	.000	-11.700	55.000	SRF 11.2500
61.000	.000	-11.700	55.000	SRF 11.2500
62.000	.000	-11.700	55.000	SRF 11.2500
63.000	.000	-11.700	55.000	SRF 11.2500
64.000	.000	-11.700	55.000	SRF 11.2500
65.000	.000	-11.700	55.000	SRF 11.2500
66.000	.000	-11.700	55.000	SRF 11.2500
67.000	.000	-11.700	55.000	SRF 11.2500
68.000	.000	-11.700	55.000	SRF 11.2500
69.000	.000	-11.700	55.000	SRF 11.2500
70.000	.000	-11.700	55.000	SRF 11.2500
71.000	.000	-11.700	55.000	SRF 11.2500
72.000	.000	-11.700	55.000	SRF 11.2500
73.000	.000	-11.700	55.000	SRF 11.2500
74.000	.0			

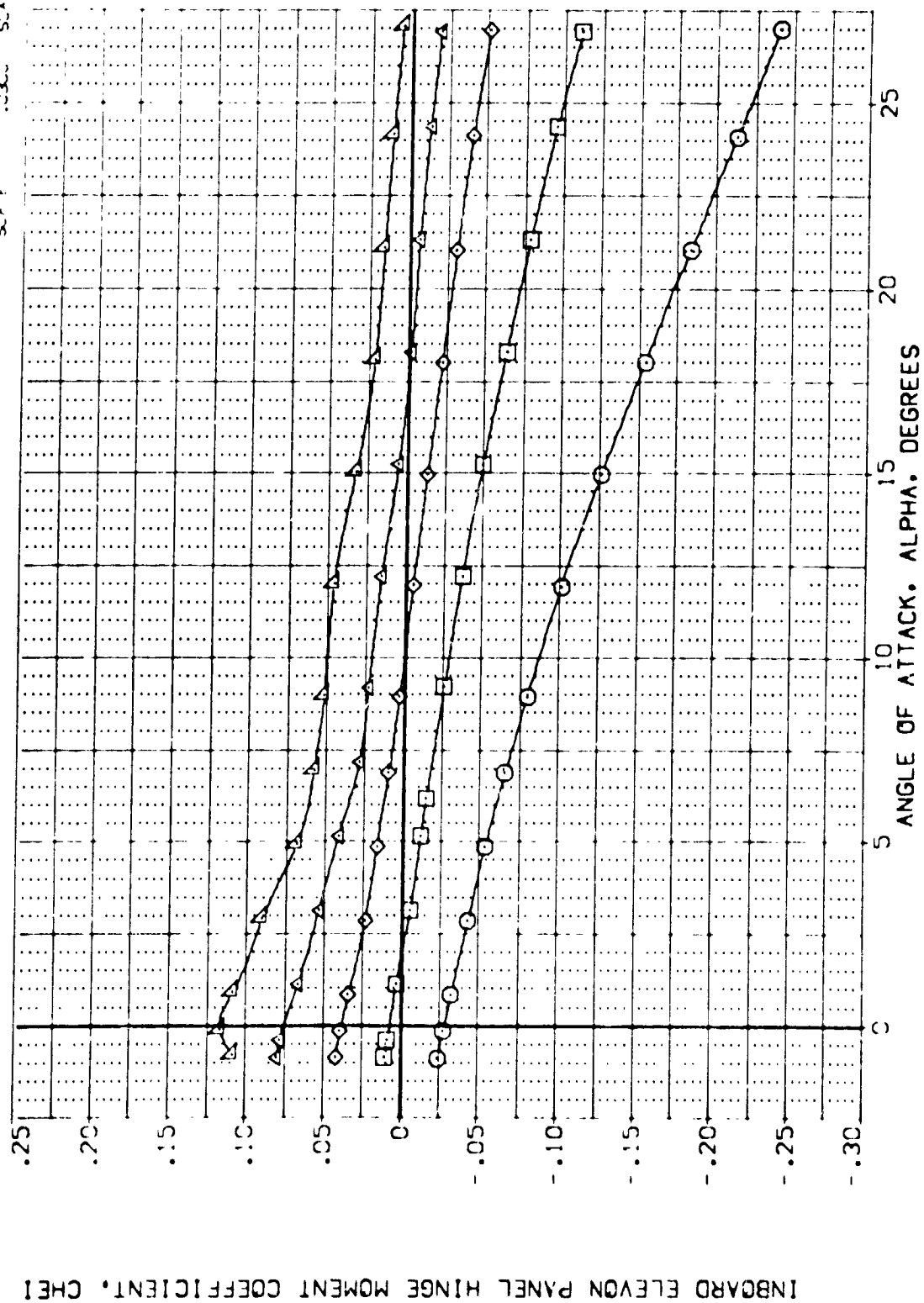


FIG. 30. 30 ELEVEN HINGE MOMENTS

CCNYAC = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ELEVON	ATTURON	BOF LAP	SPD00M	REFERENCE INFORMATION
(VE-003)	ARC 87-747 OASIC B C M F VI V	NO.	RV/L	15.000	.000	-11.700	55.000	SPFF 2.4210 SCALF
(VE-001)	ARC 87-747 OASIC B C M F VI V	NO.	RV/L	10.000	.000	-11.700	55.000	SPFF 14.2440 SCALF
(VE-002)	ARC 87-747 OASIC B C M F VI V	NO.	RV/L	-10.000	.000	-11.700	55.000	SPFF 28.1004 SCALF
(VE-009)	ARC 87-747 OASIC B C M F VI V	NO.	RV/L	-20.000	.000	-11.700	55.000	SPFF 32.3010 SCALF
(VE-023)	ARC 87-747 OASIC B C M F VI V	NO.	RV/L	-40.000	.000	-11.700	55.000	SPFF 11.2500 SCALF

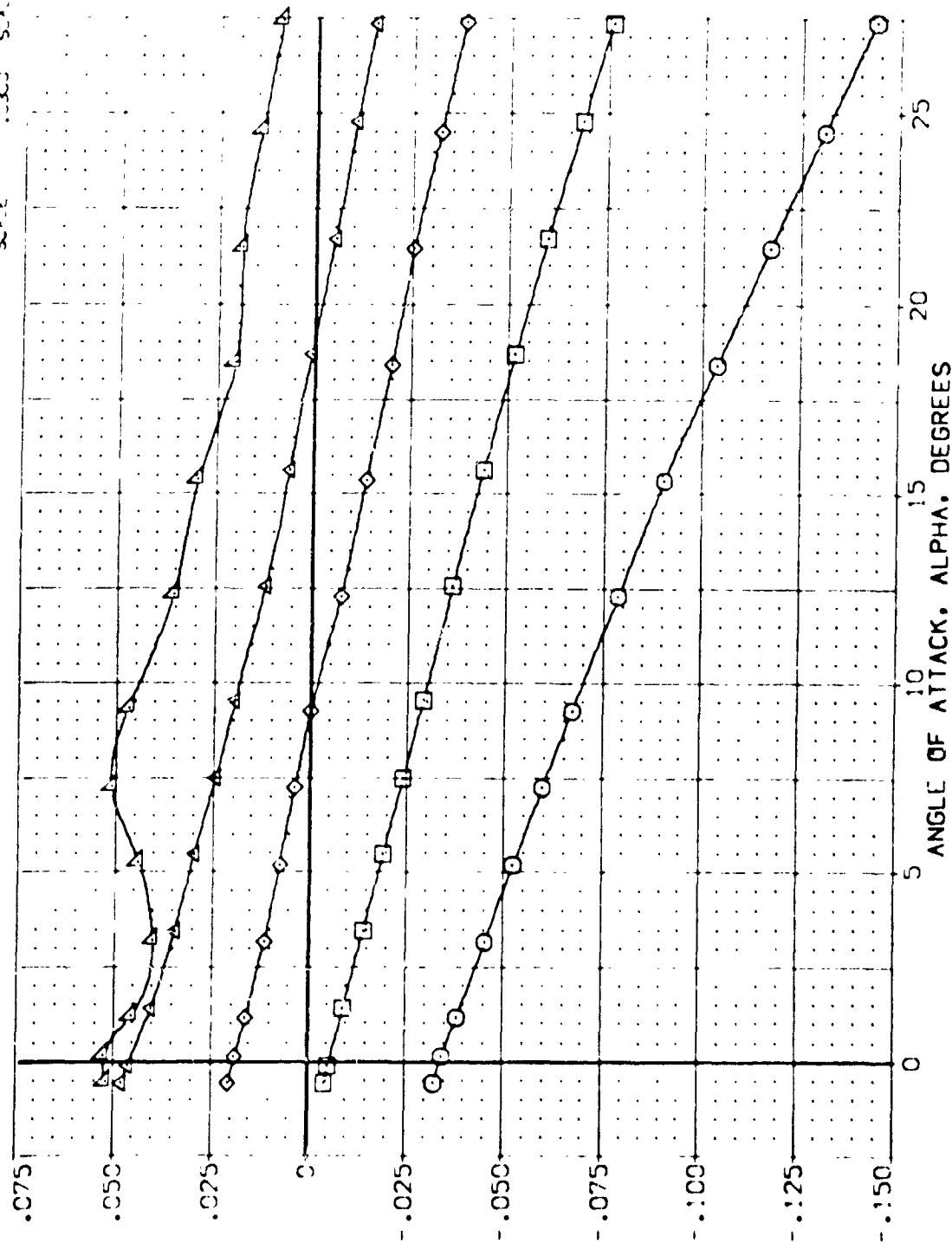


FIG. 30 ELEVON HINGE MOMENTS

(A) MAC = 2.50

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	ELEVON	ATLORN	BOFLAP	SPORRK	REFERENCE INFORMATION
003	ABC	87-747	045EC B C M F V I V	15.000	.000	-11.700	55.000	SPRF 2.4210
003	ABC	87-747	045EC B C M F V I V	.000	.000	-11.700	55.000	SPRF 14.2440
003	ABC	87-747	045EC B C M F V I V	-10.000	.000	-11.700	55.000	SPRF 28.1004
003	ABC	87-747	045EC B C M F V I V	-20.000	.000	-11.700	55.000	SPRF 33.3010
003	ABC	87-747	045EC B C M F V I V	-40.000	.000	-11.700	55.000	SPRF 11.7000
								SCALE 1.0000

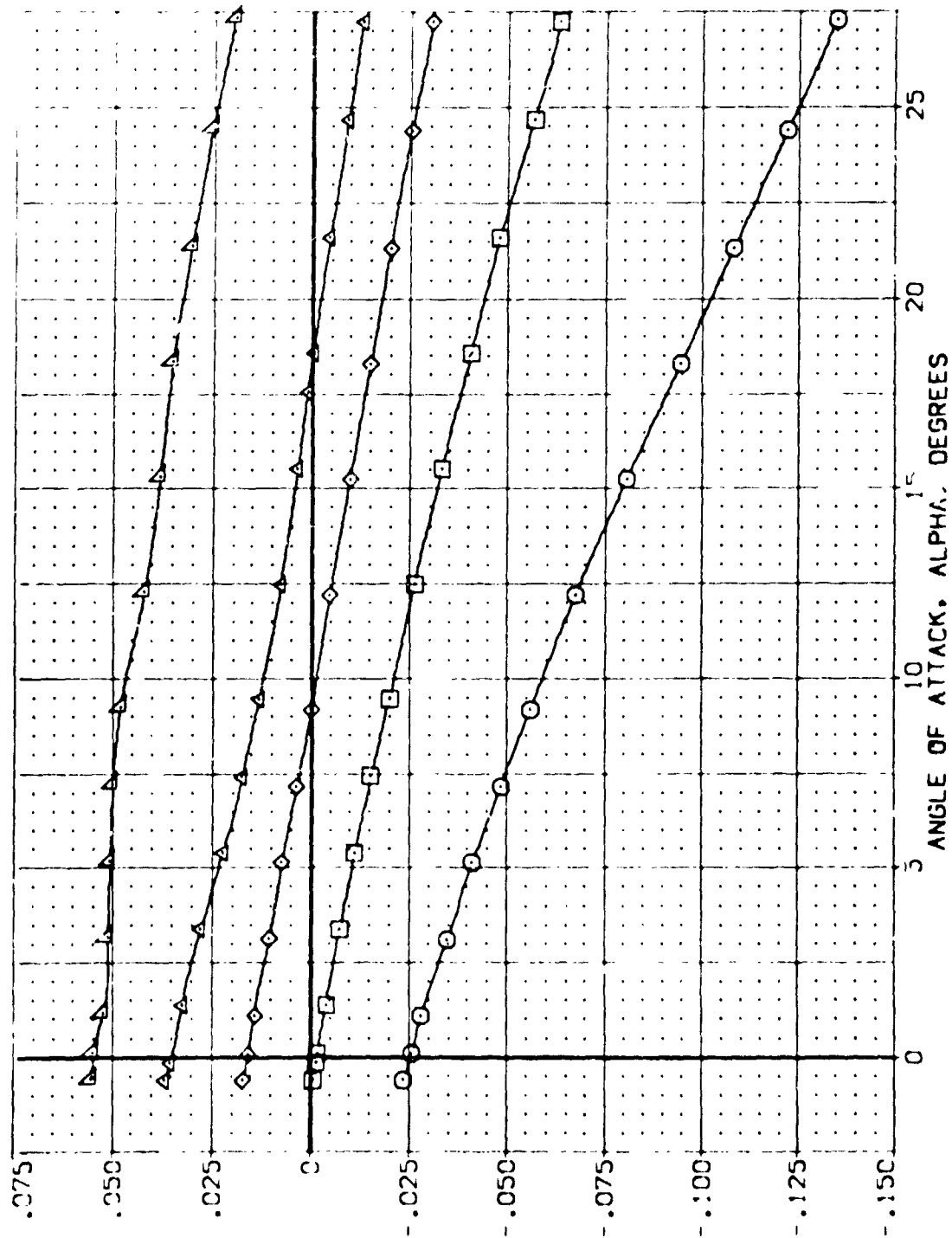
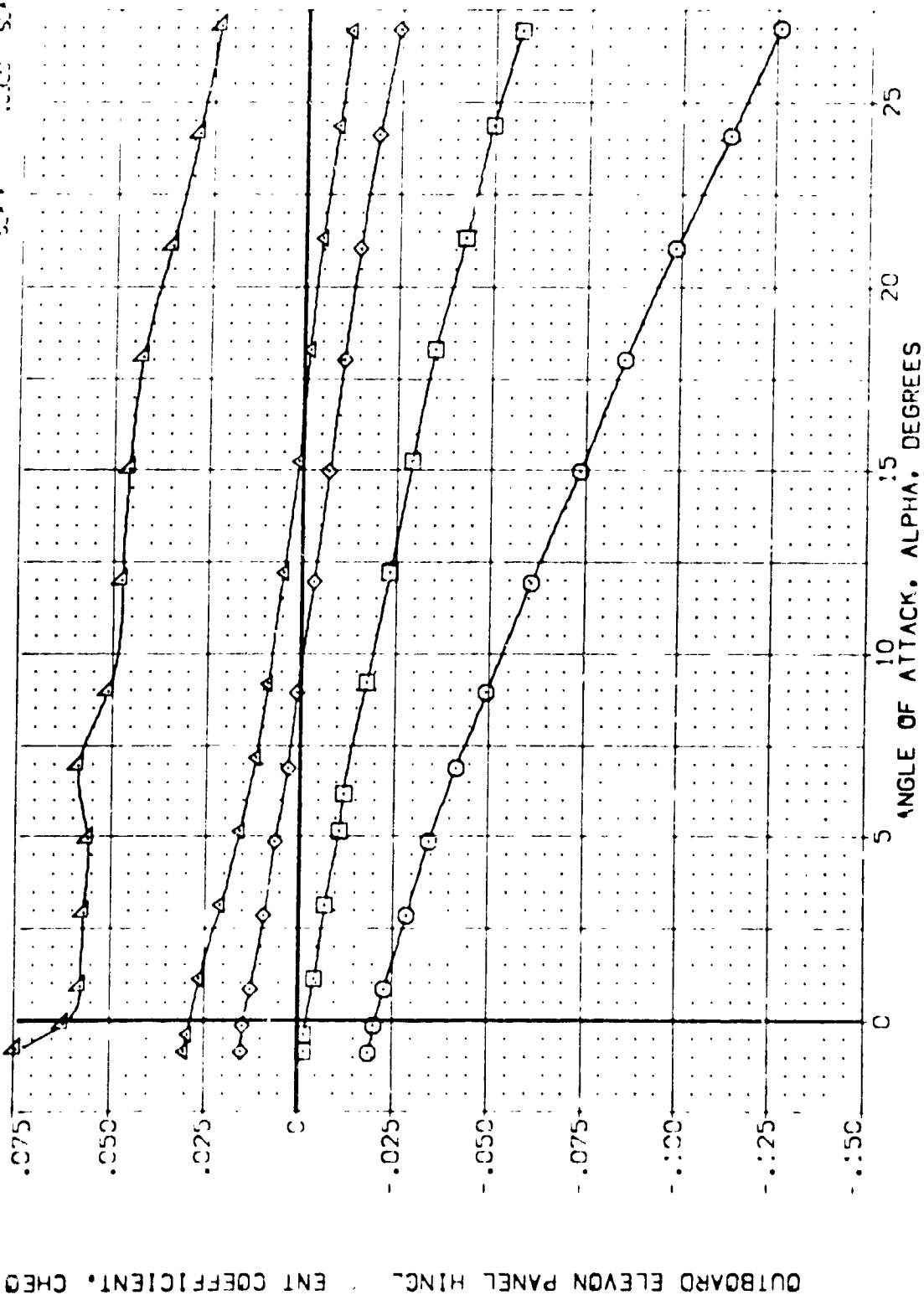


FIG. 30 ELEVON HINGE MOMENTS

(3)MAC = 3.00

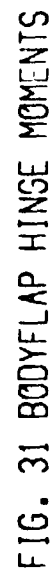
DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
VE-003	ARC 87-747	BASEC B C M F VI
VE-004	ARC 87-747	BASEC B C M F VI
VE-005	ARC 87-747	BASEC B C M F VI
VE-006	ARC 87-747	BASEC B C M F VI
VE-007	ARC 87-747	BASEC B C M F VI
VE-008	ARC 87-747	BASEC B C M F VI
VE-009	ARC 87-747	BASEC B C M F VI
VE-010	ARC 87-747	BASEC B C M F VI
VE-011	ARC 87-747	BASEC B C M F VI
VE-012	ARC 87-747	BASEC B C M F VI
VE-013	ARC 87-747	BASEC B C M F VI
VE-014	ARC 87-747	BASEC B C M F VI
VE-015	ARC 87-747	BASEC B C M F VI
VE-016	ARC 87-747	BASEC B C M F VI
VE-017	ARC 87-747	BASEC B C M F VI
VE-018	ARC 87-747	BASEC B C M F VI
VE-019	ARC 87-747	BASEC B C M F VI
VE-020	ARC 87-747	BASEC B C M F VI
VE-021	ARC 87-747	BASEC B C M F VI
VE-022	ARC 87-747	BASEC B C M F VI
VE-023	ARC 87-747	BASEC B C M F VI
VE-024	ARC 87-747	BASEC B C M F VI
VE-025	ARC 87-747	BASEC B C M F VI
VE-026	ARC 87-747	BASEC B C M F VI
VE-027	ARC 87-747	BASEC B C M F VI
VE-028	ARC 87-747	BASEC B C M F VI
VE-029	ARC 87-747	BASEC B C M F VI
VE-030	ARC 87-747	BASEC B C M F VI
VE-031	ARC 87-747	BASEC B C M F VI
VE-032	ARC 87-747	BASEC B C M F VI
VE-033	ARC 87-747	BASEC B C M F VI
VE-034	ARC 87-747	BASEC B C M F VI
VE-035	ARC 87-747	BASEC B C M F VI
VE-036	ARC 87-747	BASEC B C M F VI
VE-037	ARC 87-747	BASEC B C M F VI
VE-038	ARC 87-747	BASEC B C M F VI
VE-039	ARC 87-747	BASEC B C M F VI
VE-040	ARC 87-747	BASEC B C M F VI
VE-041	ARC 87-747	BASEC B C M F VI
VE-042	ARC 87-747	BASEC B C M F VI
VE-043	ARC 87-747	BASEC B C M F VI
VE-044	ARC 87-747	BASEC B C M F VI
VE-045	ARC 87-747	BASEC B C M F VI
VE-046	ARC 87-747	BASEC B C M F VI
VE-047	ARC 87-747	BASEC B C M F VI
VE-048	ARC 87-747	BASEC B C M F VI
VE-049	ARC 87-747	BASEC B C M F VI
VE-050	ARC 87-747	BASEC B C M F VI
VE-051	ARC 87-747	BASEC B C M F VI
VE-052	ARC 87-747	BASEC B C M F VI
VE-053	ARC 87-747	BASEC B C M F VI
VE-054	ARC 87-747	BASEC B C M F VI
VE-055	ARC 87-747	BASEC B C M F VI
VE-056	ARC 87-747	BASEC B C M F VI
VE-057	ARC 87-747	BASEC B C M F VI
VE-058	ARC 87-747	BASEC B C M F VI
VE-059	ARC 87-747	BASEC B C M F VI
VE-060	ARC 87-747	BASEC B C M F VI
VE-061	ARC 87-747	BASEC B C M F VI
VE-062	ARC 87-747	BASEC B C M F VI
VE-063	ARC 87-747	BASEC B C M F VI
VE-064	ARC 87-747	BASEC B C M F VI
VE-065	ARC 87-747	BASEC B C M F VI
VE-066	ARC 87-747	BASEC B C M F VI
VE-067	ARC 87-747	BASEC B C M F VI
VE-068	ARC 87-747	BASEC B C M F VI
VE-069	ARC 87-747	BASEC B C M F VI
VE-070	ARC 87-747	BASEC B C M F VI
VE-071	ARC 87-747	BASEC B C M F VI
VE-072	ARC 87-747	BASEC B C M F VI
VE-073	ARC 87-747	BASEC B C M F VI
VE-074	ARC 87-747	BASEC B C M F VI
VE-075	ARC 87-747	BASEC B C M F VI
VE-076	ARC 87-747	BASEC B C M F VI
VE-077	ARC 87-747	BASEC B C M F VI
VE-078	ARC 87-747	BASEC B C M F VI
VE-079	ARC 87-747	BASEC B C M F VI
VE-080	ARC 87-747	BASEC B C M F VI
VE-081	ARC 87-747	BASEC B C M F VI
VE-082	ARC 87-747	BASEC B C M F VI
VE-083	ARC 87-747	BASEC B C M F VI
VE-084	ARC 87-747	BASEC B C M F VI
VE-085	ARC 87-747	BASEC B C M F VI
VE-086	ARC 87-747	BASEC B C M F VI
VE-087	ARC 87-747	BASEC B C M F VI
VE-088	ARC 87-747	BASEC B C M F VI
VE-089	ARC 87-747	BASEC B C M F VI
VE-090	ARC 87-747	BASEC B C M F VI
VE-091	ARC 87-747	BASEC B C M F VI
VE-092	ARC 87-747	BASEC B C M F VI
VE-093	ARC 87-747	BASEC B C M F VI
VE-094	ARC 87-747	BASEC B C M F VI
VE-095	ARC 87-747	BASEC B C M F VI
VE-096	ARC 87-747	BASEC B C M F VI
VE-097	ARC 87-747	BASEC B C M F VI
VE-098	ARC 87-747	BASEC B C M F VI
VE-099	ARC 87-747	BASEC B C M F VI
VE-100	ARC 87-747	BASEC B C M F VI



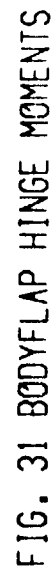


BODYFLAP HINGE MOMENT COEFFICIENT, CHBF



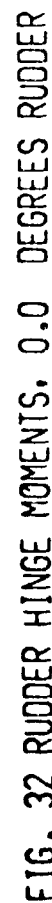
PAGE 573

BODYFLAP HINGE MOMENT COEFFICIENT, CHBF


$$(B)^{MAC} = 3.00$$



RUDDER HINGE MOMENT COEFFICIENT, CHR


$$\{A\}_{MACH} = 2.50$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPDRK	REFERENCE INFORMATION
(YEL075)	ARC 07-747 04500	.000	.000	-11.700	25.000	2.4210 SQ.FT.
(YEL076)	ARC 07-747 04500	10.000	.000	-11.700	25.000	14.2440 IN.
(YEL077)	ARC 07-747 04500	20.000	.000	-11.700	25.000	28.1004 IN.
(YEL078)	ARC 07-747 04500	10.000	.000	-11.700	53.000	32.3010 IN.
(YEL079)	ARC 07-747 04500	10.000	.000	-11.700	53.000	11.2300 IN.
(YEL080)	ARC 07-747 04500	20.000	.000	-11.700	53.000	SCALE

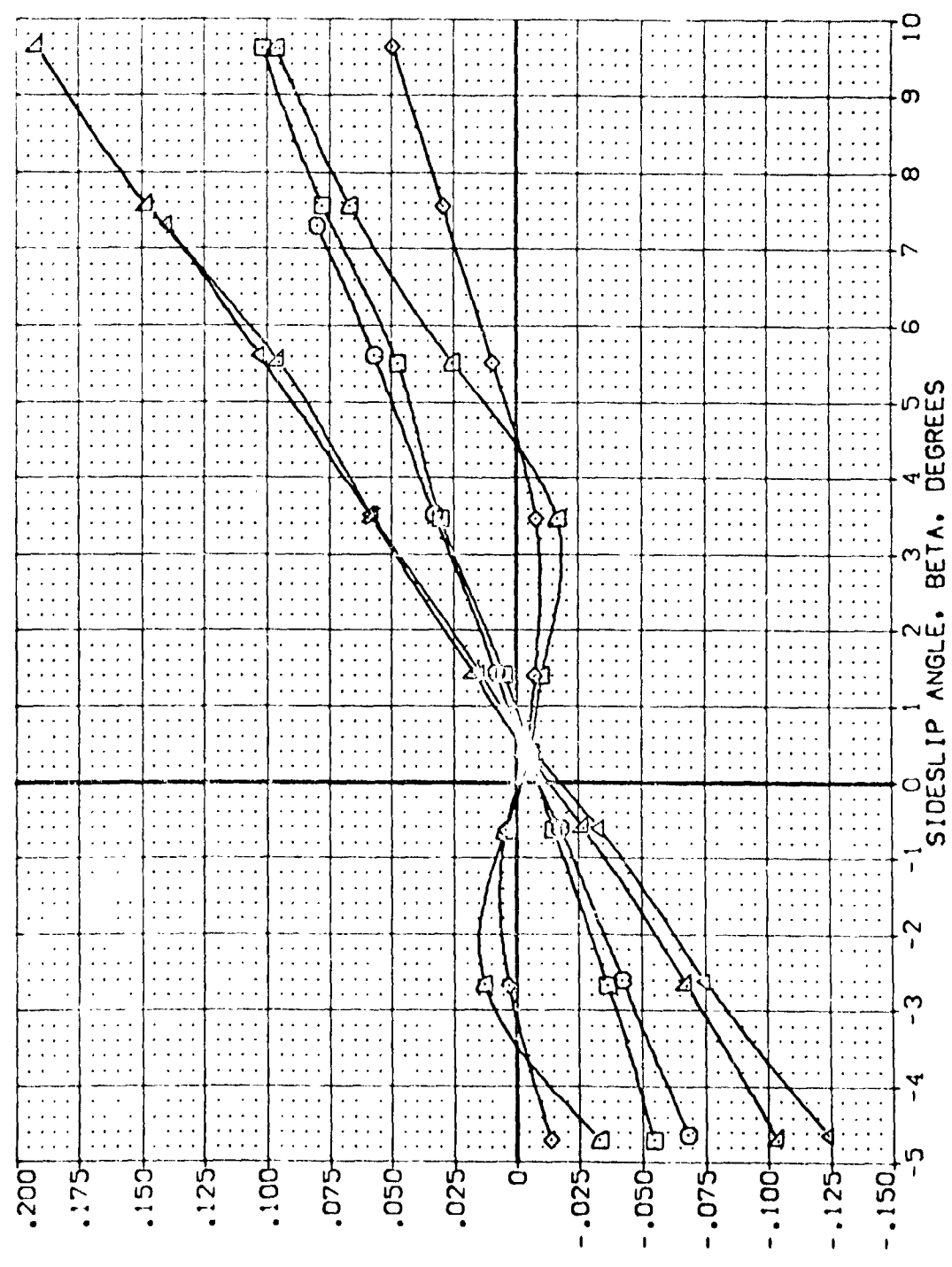


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOT	RV/L	ALPHA	RUDDER	BDFLAP	SPOBRK	REFERENCE INFORMATION
(YEL025)	ARC 87-747 OASCC B C H F VI	Y	RV/L	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL026)	ARC 87-747 OASCC B C H F VI	Y	RV/L	10.000	.000	-11.700	25.000	LINEF 14.2440 IN.
(YEL027)	ARC 87-747 OASCC B C H F VI	Y	RV/L	20.000	.000	-11.700	25.000	BOREF 29.1004 IN.
(YEL012)	ARC 87-747 OASCC B C H F VI	Y	RV/L	.000	.000	-11.700	55.000	XREF 32.3010 IN.
(YEL013)	ARC 87-747 OASCC B C H F VI	Y	RV/L	10.000	.000	-11.700	55.000	YREF .0000 IN.
(YEL014)	ARC 87-747 OASCC B C H F VI	Y	RV/L	20.000	.000	-11.700	55.000	ZREF 11.2500 IN.
							SCALE	SCALE

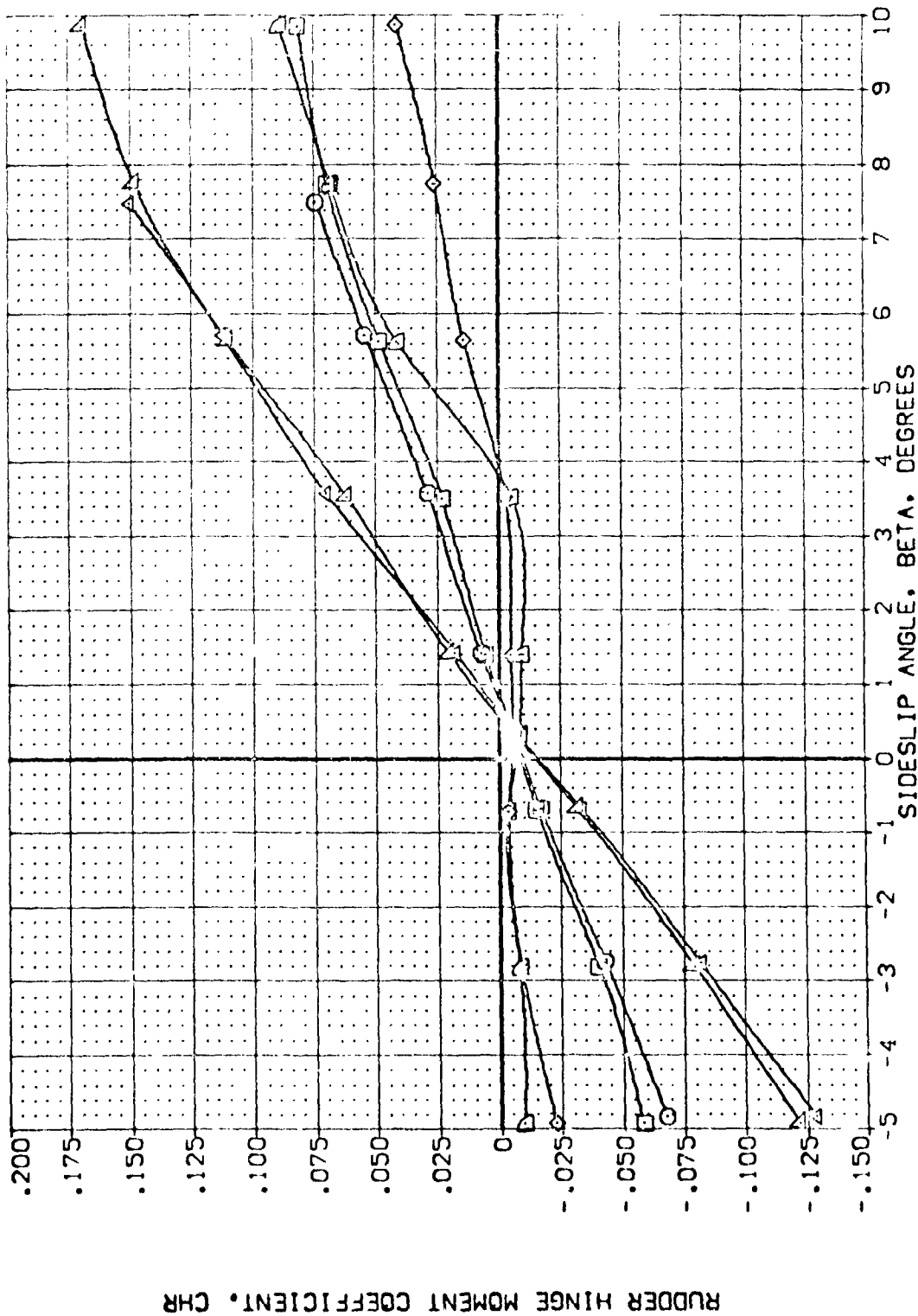


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER  
(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPODBRK	REFERENCE INFORMATION
[YEL025]	ARC 07-747 BASOC B C C H F V I	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[YEL026]	ARC 07-747 BASOC B C C H F V I	10.000	.000	-11.700	25.000	LREF 14.2440 IN.
[YEL027]	ARC 07-747 BASOC B C C H F V I	20.000	.000	-11.700	25.000	EOREF 28.1000 IN.
[YEL012]	ARC 07-747 BASOC B C C H F V I	10.000	.000	-11.700	55.000	XREF 32.3010 IN.
[YEL013]	ARC 07-747 BASOC B C C H F V I	10.000	.000	-11.700	55.000	YREF .0000 IN.
[YEL014]	ARC 07-747 BASOC B C C H F V I	20.000	.000	-11.700	55.000	ZREF 11.2000 IN.
						SCALE .0000

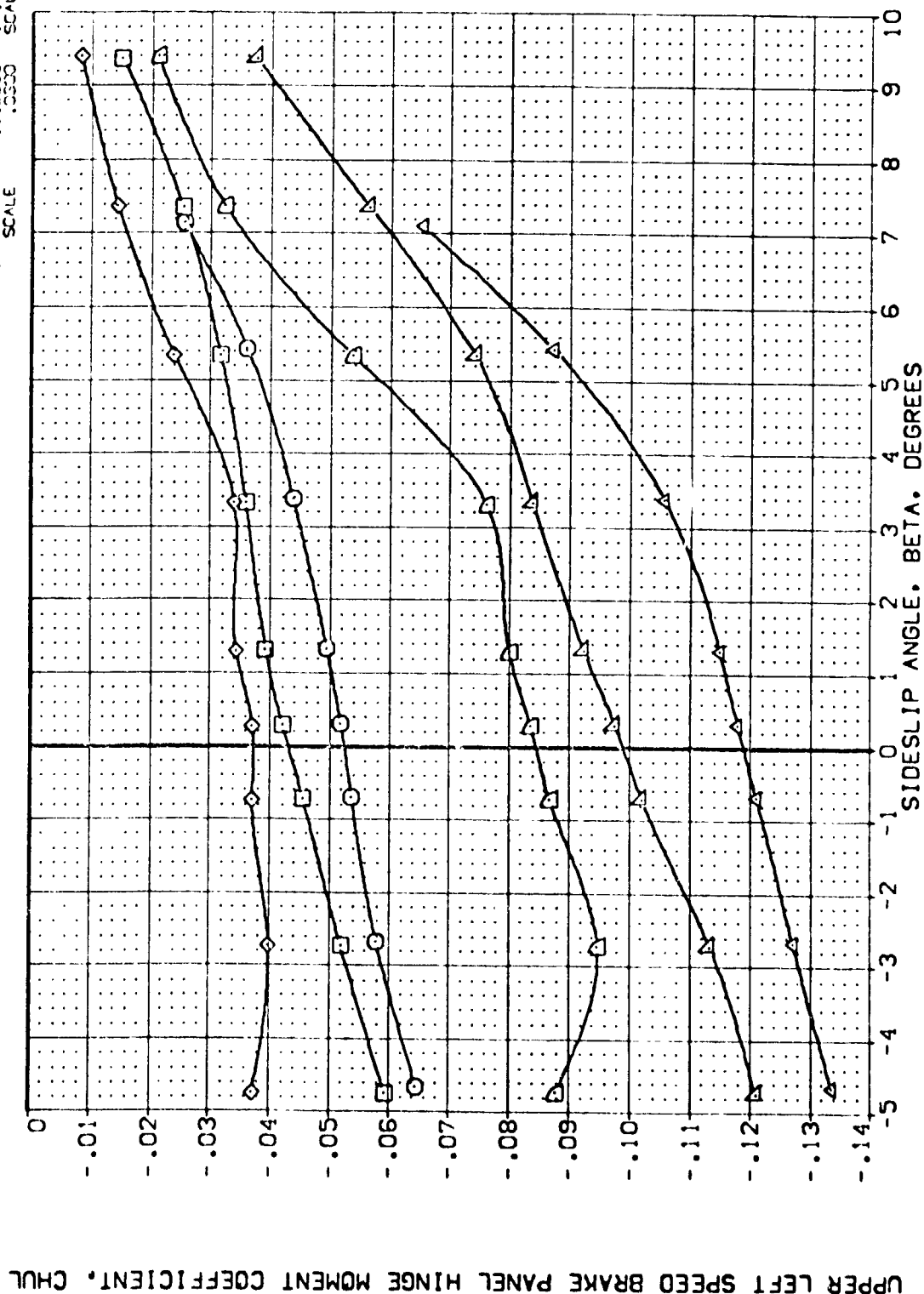


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

(A)MACH = 2.50

DATA SET SYMB.	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
[YEL029]	ARC 67-747 DASEC B C M F V I V	0.000	0.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[YEL026]	ARC 67-747 DASEC B C M F V I V	10.000	0.000	-11.700	23.000	LREF 14.2440 IN.
[YEL077]	ARC 67-747 DASEC B C M F V I V	20.000	0.000	-11.700	23.000	BREF 28.1004 IN.
[YEL012]	ARC 67-747 DASEC B C M F V I V	10.000	0.000	-11.700	55.000	XREF 32.3010 IN.
[YEL013]	ARC 67-747 DASEC B C M F V I V	10.000	0.000	-11.700	55.000	YREF 0.000 IN.
[YEL014]	ARC 67-747 DASEC B C M F V I V	10.000	0.000	-11.700	55.000	ZREF 11.200 IN.
						SCALE 6.000

UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

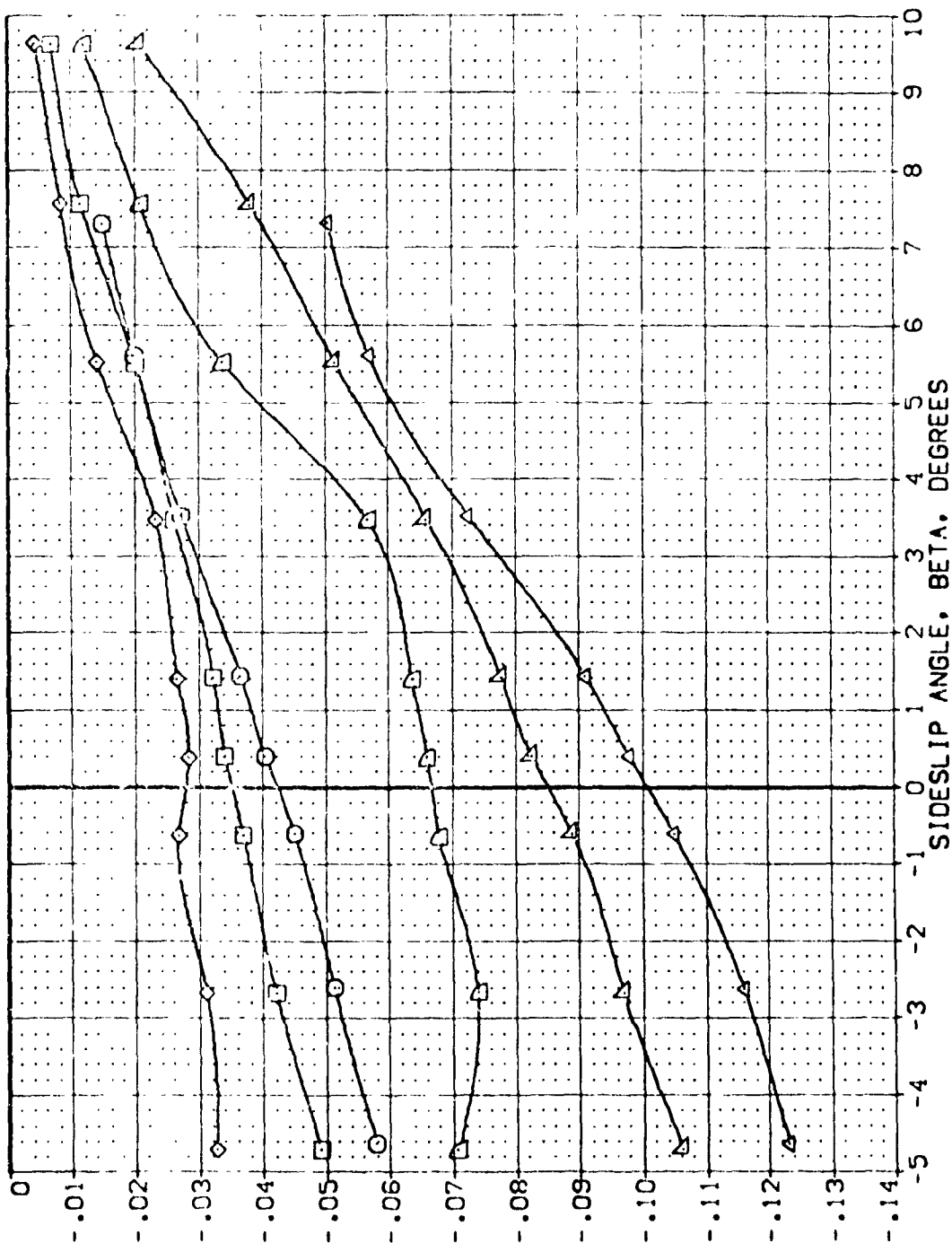


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER  
(B)MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDFLAP	SPEED	REFERENCE INFORMATION
(YEL025)	ARC 67-747 CASE 1	0.000	0.000	-11.700	25.000	SREF 2.4210
(YEL026)	ARC 67-747 CASE 2	10.000	0.000	-11.700	25.000	UREF 14.2440
(YEL027)	ARC 67-747 CASE 3	20.000	0.000	-11.700	25.000	UREF 28.1004
(YEL012)	ARC 67-747 CASE 4	10.000	0.000	-11.700	55.000	YMP 32.3010
(YEL013)	ARC 67-747 CASE 5	10.000	0.000	-11.700	55.000	YMP 0.0000
(YEL014)	ARC 67-747 CASE 6	20.000	0.000	-11.700	55.000	YMP 11.2500
					SCALE	SCALE .0300

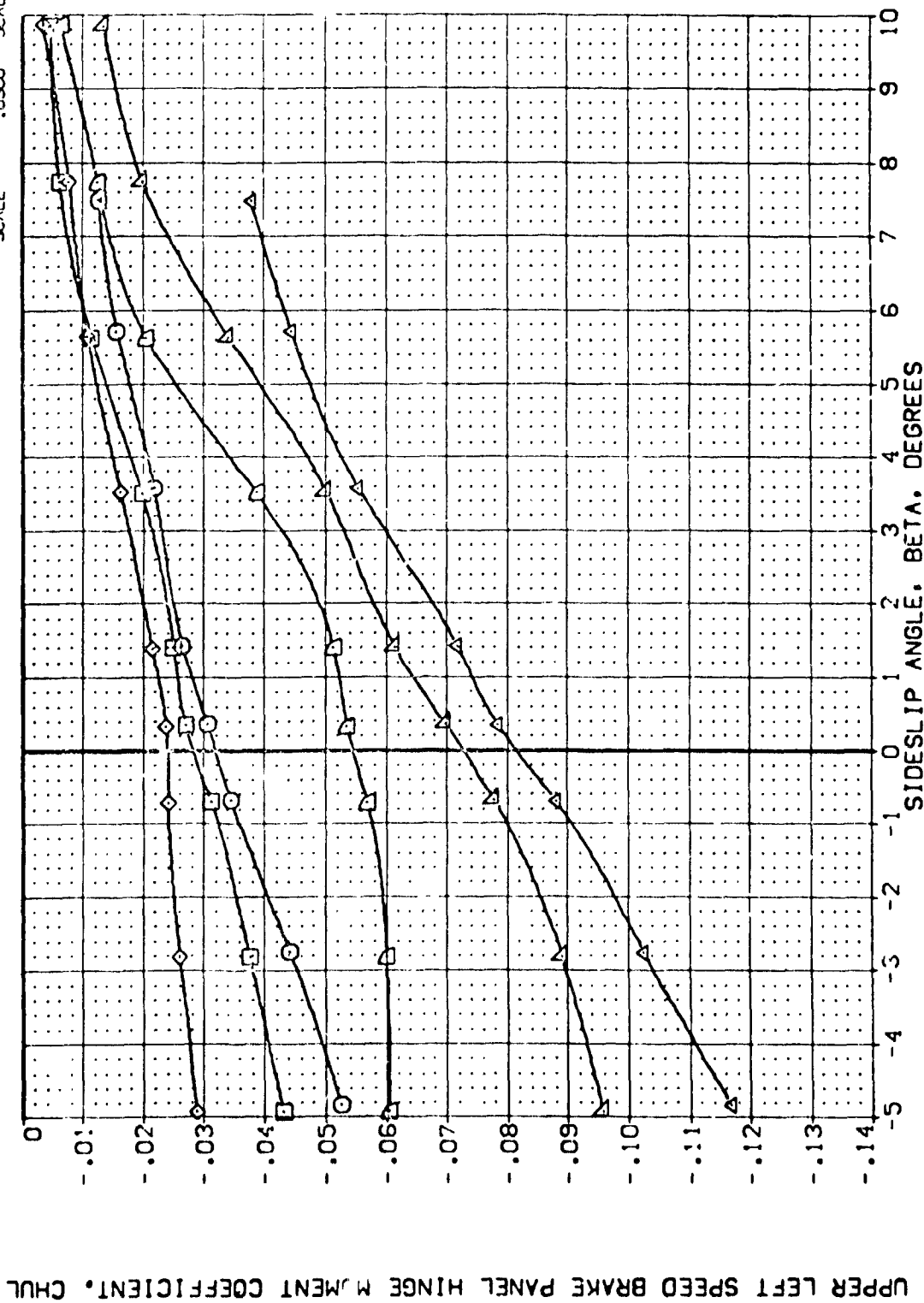


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

Symbol	Configuration	Description
ARC 87-747	BASE	BASE
ARC 87-747	P	P
ARC 87-747	L	L
ARC 87-747	U	U
ARC 87-747	W	W
ARC 87-747	Y	Y

ALPHA .000  
 10.000  
 20.000  
 10.000  
 20.000

RUDDER .000  
 .000  
 .000  
 .000  
 .000

BDF LAP -11.700  
 -11.700  
 -11.700  
 -11.700  
 -11.700

SPOBRK 25.000  
 25.000  
 25.000  
 55.000  
 55.000

REFERENCE INFORMATION  
 SREF 2.4210  
 LREF 14.2440  
 BREF 28.1004  
 XREF 32.3010  
 YREF 11.2000  
 ZREF 11.2000  
 SCALE .0000

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

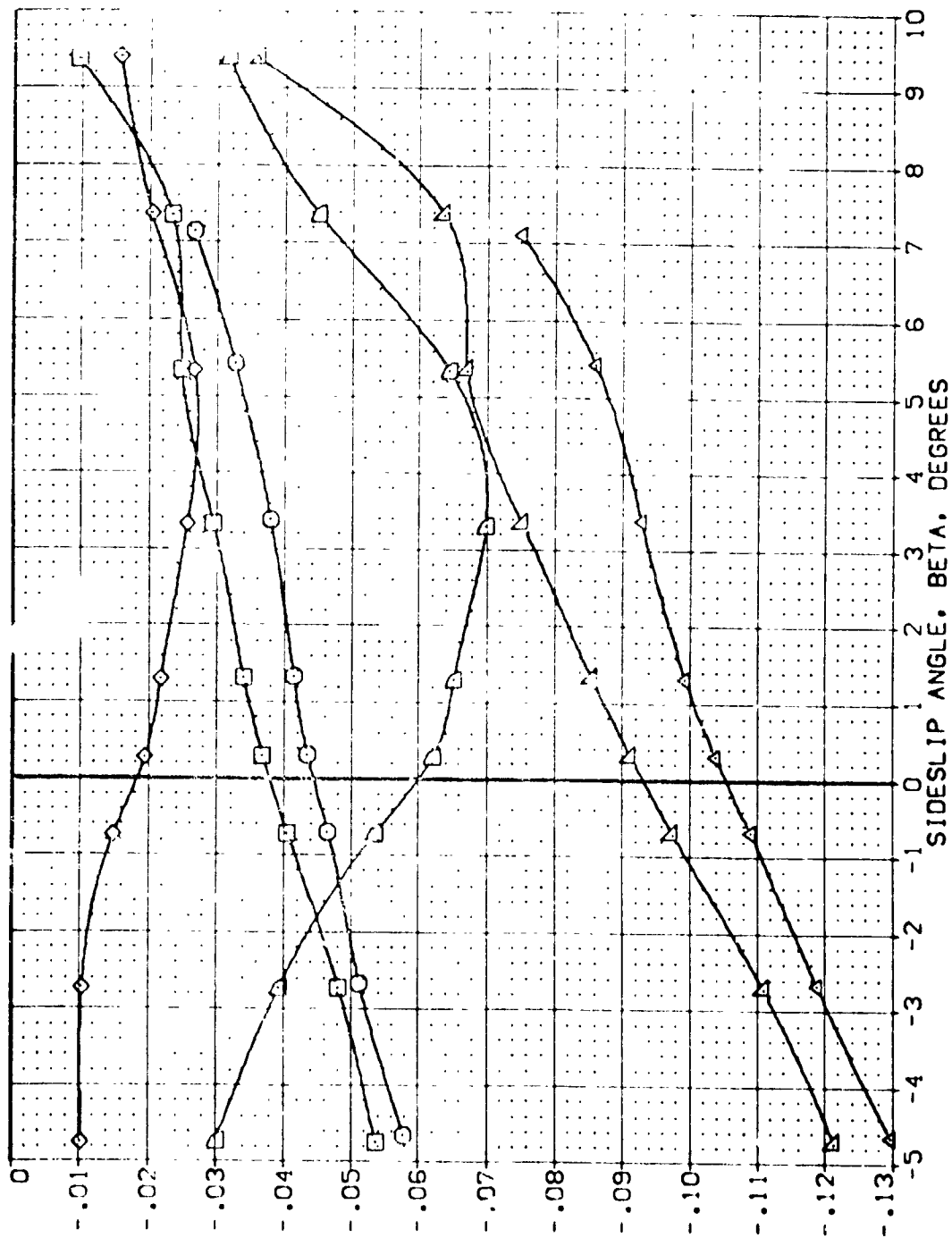


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
ARC 87-747 BASIC	B C C H F V I	.000	.000	11.700	75.000	SREF 2.4210 SQ.FT.
[YEL025]	ARC 87-747 BASIC	10.000	.000	11.700	75.000	LREF 14.2140 IN.
[YEL026]	ARC 87-747 BASIC	20.000	.000	11.700	75.000	BREF 28.1004 IN.
[YEL077]	ARC 87-747 BASIC	10.000	.000	11.700	75.000	XREF 32.3010 IN.
[YEL012]	ARC 87-747 BASIC	10.000	.000	11.700	75.000	YREF 11.0000 IN.
[YEL013]	ARC 87-747 BASIC	20.000	.000	11.700	75.000	ZREF 11.2500 IN.
[YEL014]	ARC 87-747 BASIC	20.000	.000	11.700	75.000	SCALE .0000

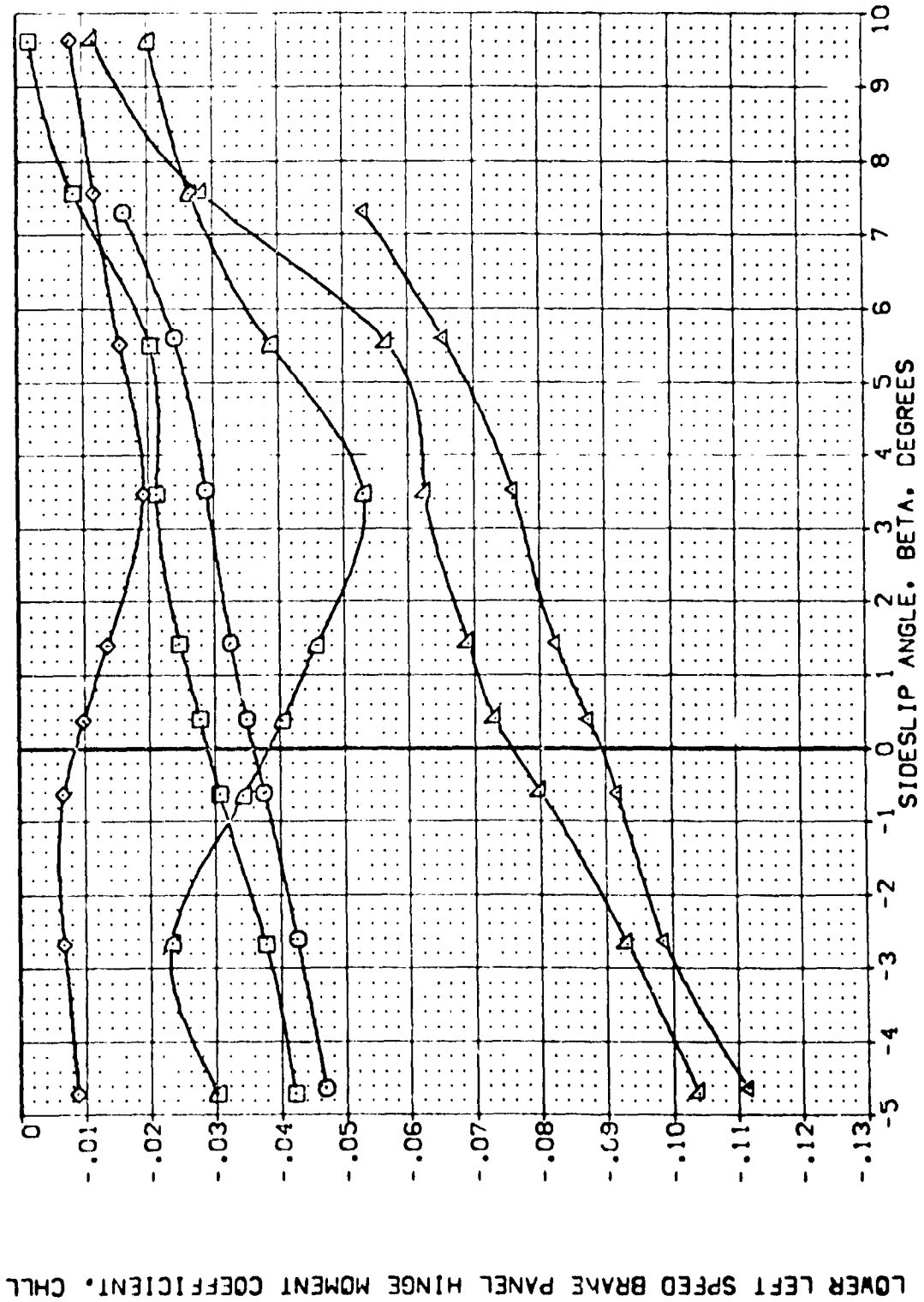


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOE LAP	SPDRBK	REFERENCE INFORMATION
(VELO25)	ARC 87-747 BASIC R C H F VI	.000	.000	-11.700	25.000	SREF 2.4210 50.000
(VELO26)	ARC 87-747 BASIC B C H F VI	10.000	.000	-11.700	25.000	LOEF 14.7440 50.000
(VELO27)	ARC 87-747 BASIC B C H F VI	20.000	.000	-11.700	25.000	POEF 28.1004 50.000
(VELO12)	ARC 87-747 BASIC B C H F VI	10.000	.000	-11.700	25.000	POEF 32.9010 50.000
(VELO13)	ARC 87-747 BASIC B C H F VI	10.000	.000	-11.700	25.000	POEF 32.9010 50.000
(VELO14)	ARC 87-747 BASIC B C H F VI	10.000	.000	-11.700	25.000	POEF 32.9010 50.000

SCALE

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

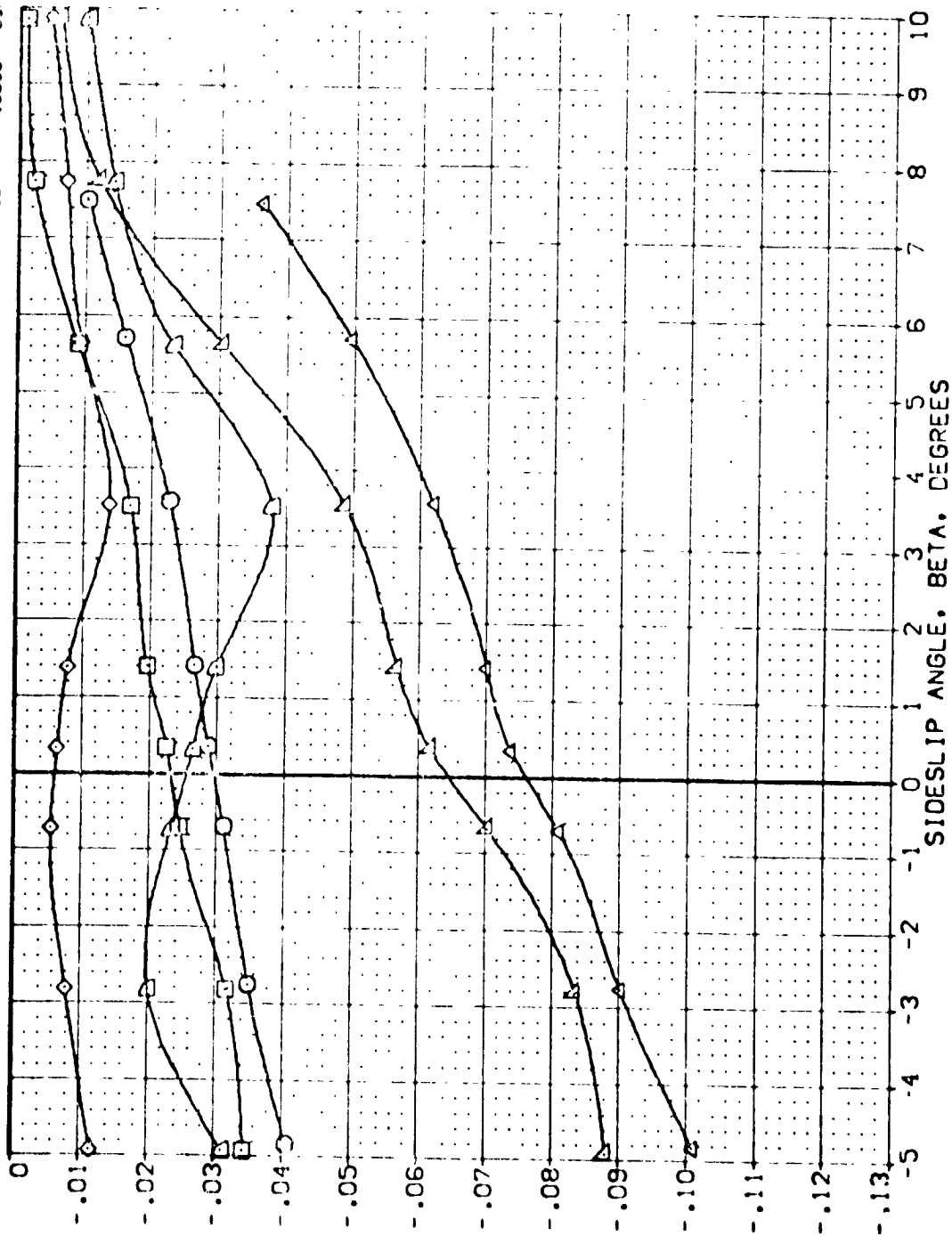


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

(C)MACH = 3.50

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

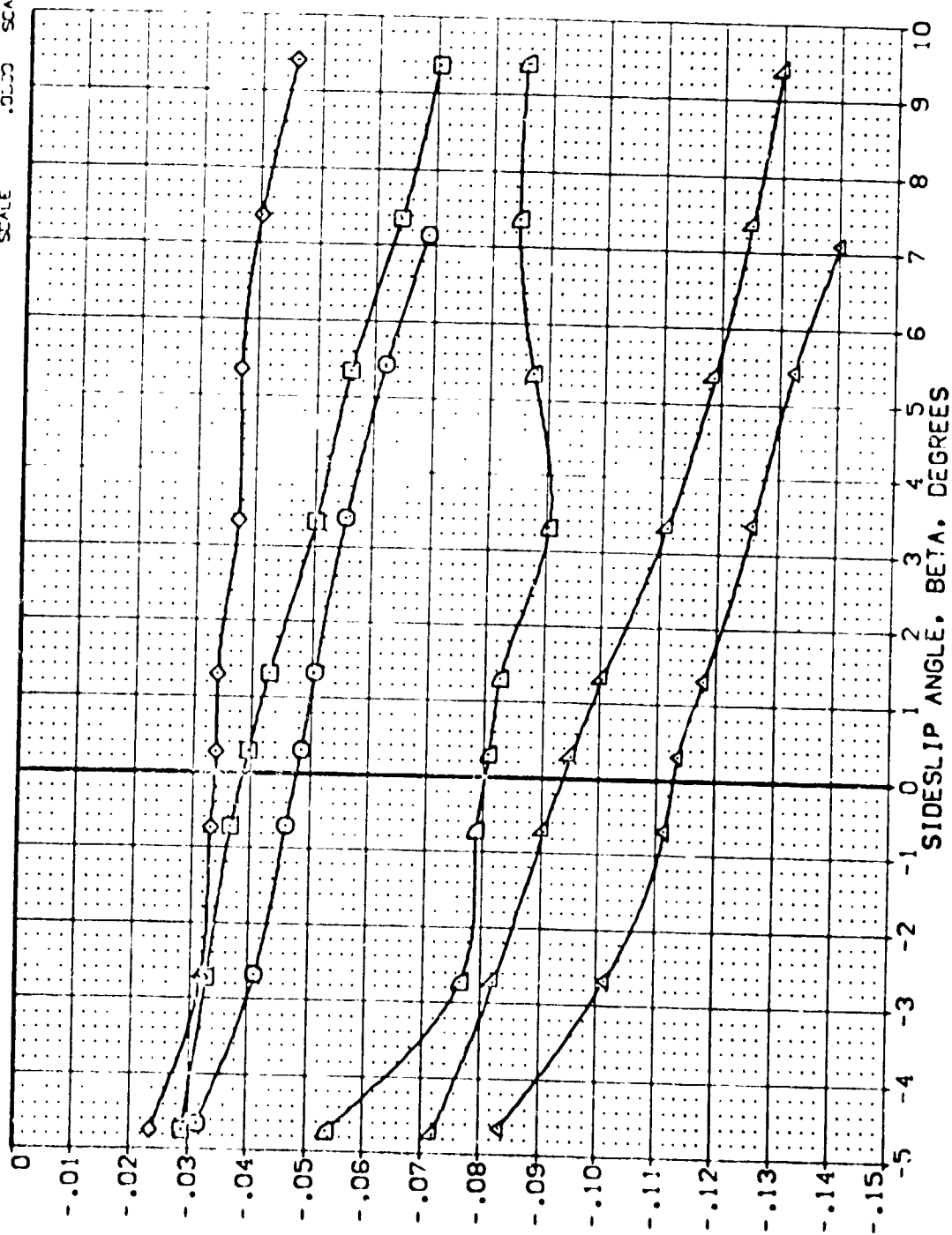


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

$$(A)_{MACH} = 2.50$$

DATA SET SYMBOL:   
 [VEL025]   
 [VEL026]   
 [VEL027]   
 [VEL012]   
 [VEL013]   
 [VEL014]

CONFIGURATION DESCRIPTION:   
 ARC 07-747 BASIC B C M F V   
 ARC 07-747 BASIC B C M F V   
 ARC 07-747 BASIC B C M F V   
 ARC 07-747 BASIC B C M F V   
 ARC 07-747 BASIC B C M F V

ALPHA: 0.000, 10.000, 20.000, 10.000, 20.000   
 RUDDER: 0.000, 0.000, 0.000, 0.000, 0.000   
 BOFLAP: -11.700, -11.700, -11.700, -11.700, -11.700   
 SPEED: 25.000, 25.000, 25.000, 55.000, 55.000   
 REFERENCE INFORMATION:   
 SREF: 2.4210   
 LREF: 14.2440   
 XREF: 28.1004   
 YREF: 32.2010   
 ZREF: 0.0000   
 SCALE: 11.2000

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

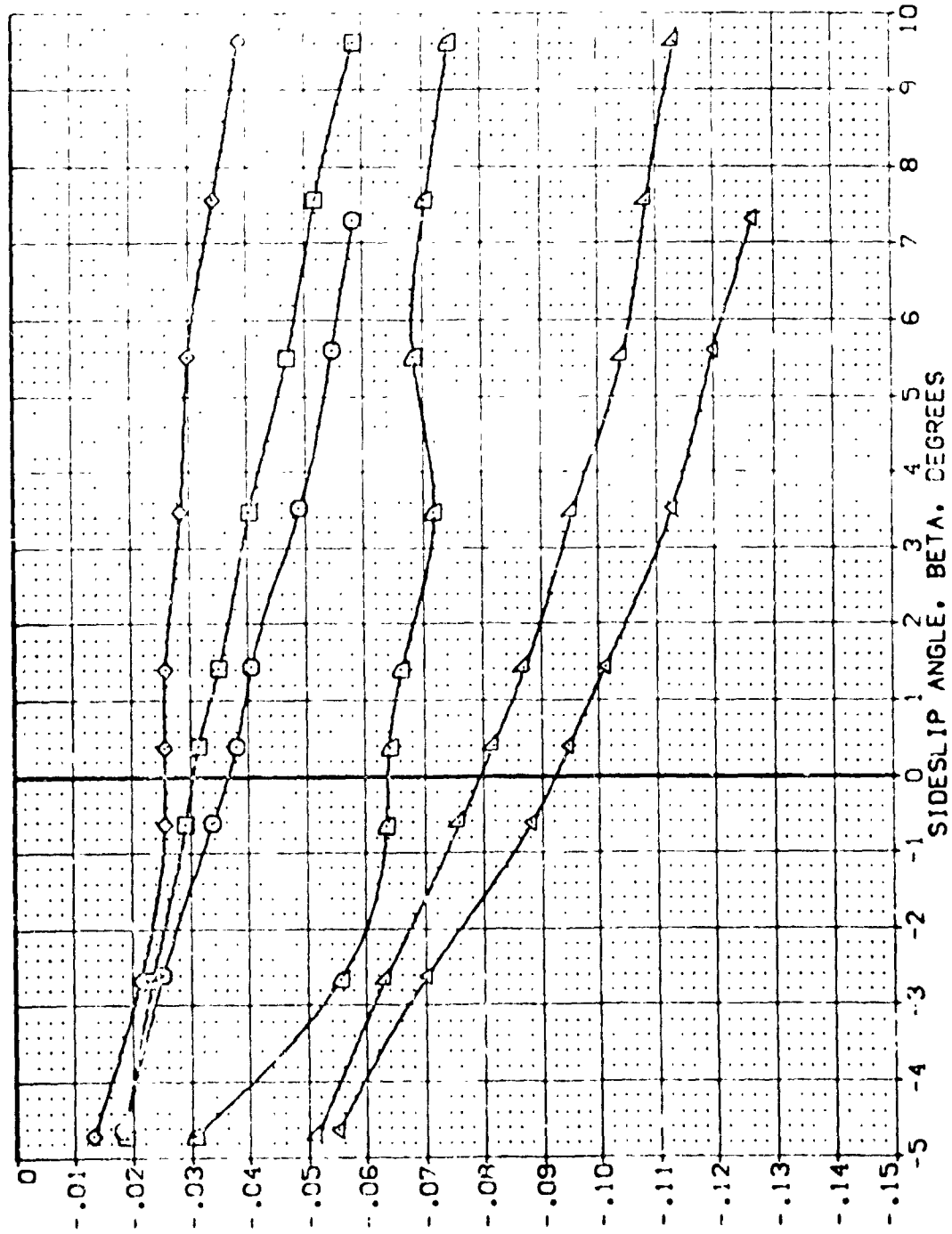


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

(B)MACH = 3.00

DATA SET SYMBOL: 000047

CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOE LAP	SPDRBY	REFERENCE INFORMATION
ARC 07-747 CAS2C B C M F VI V	0.00	0.00	-11.700	25.000	SREF 2.4210 92.F.
ARC 07-747 CAS2C B C M F VI V	10.00	0.00	-11.700	25.000	LREF 14.2440 IN.
ARC 07-747 CAS2C B C M F VI V	20.00	0.00	-11.700	25.000	BREF 28.1004 IN.
ARC 07-747 CAS2C B C M F VI V	10.00	0.00	-11.700	55.000	XREF 32.5010 IN.
ARC 07-747 CAS2C B C M F VI V	10.00	0.00	-11.700	55.000	YREF 11.2500 IN.
ARC 07-747 CAS2C B C M F VI V	20.00	0.00	-11.700	55.000	ZREF 11.2500 IN.

SCALE: .0000

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

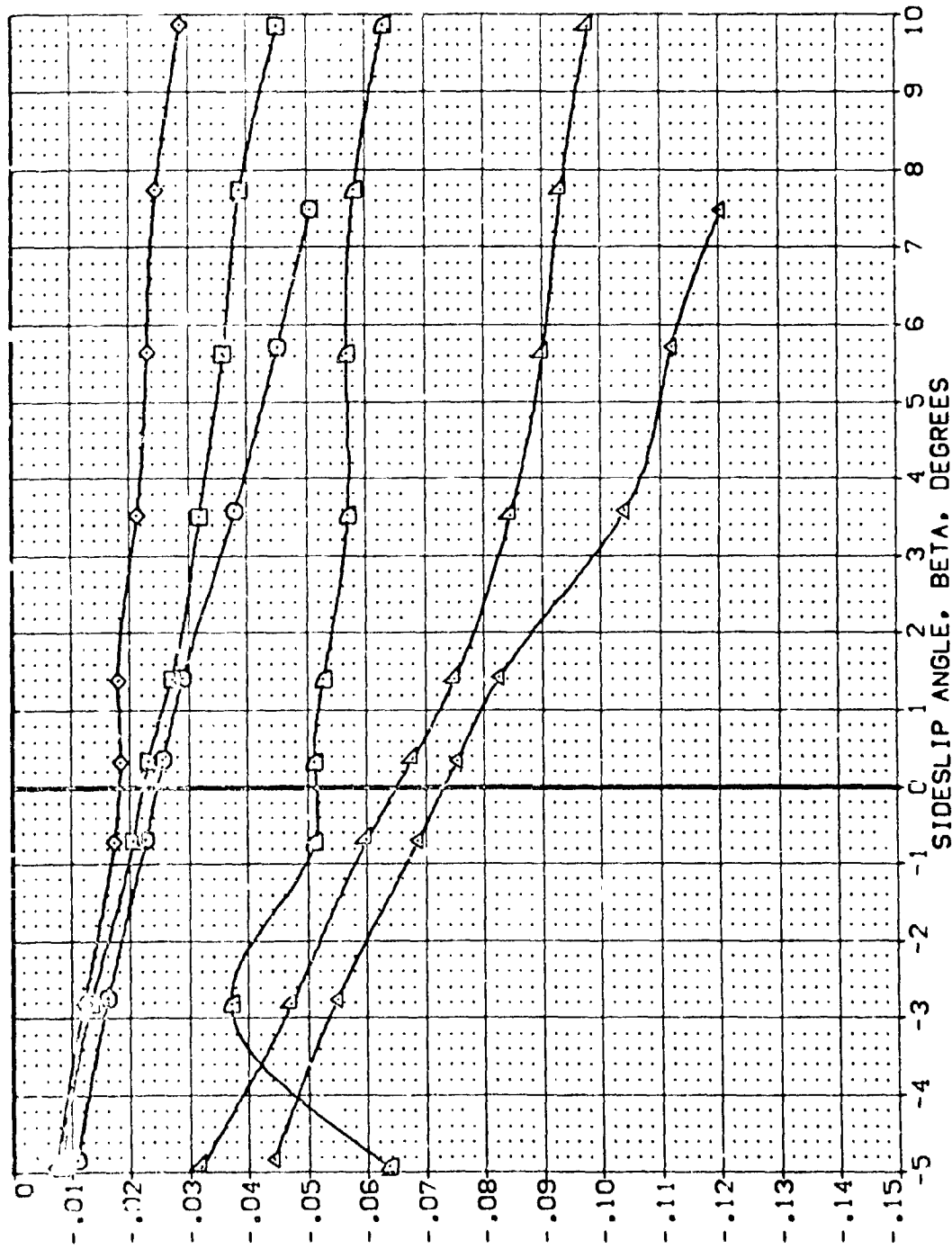


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

(C)MACH = 3.50

DATA SET SYMBOL: [YEL025] [YEL026] [YEL027] [YEL012] [YEL013] [YEL014]

CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C H F V I  
ARC 87-747 BASIC B C H F V I  
ARC 87-747 BASIC B C H F V I  
ARC 87-747 BASIC B C H F V I  
ARC 87-747 BASIC B C H F V I

ALPHA: .000  
10.000  
20.000  
10.000  
20.000

RUDDER: .000  
.000  
.000  
.000  
.000

BD/LAP: -11.700  
-11.700  
-11.700  
-11.700  
-11.700

SPDRK: 25.000  
25.000  
25.000  
55.000  
55.000

REFERENCE INFORMATION: SREF 2.4210 SQ.FT.  
LREF 14.2443 IN.  
BREF 28.1004 IN.  
XMRP 37.3010 IN.  
YMRP 11.0000 IN.  
ZMRP 11.2630 IN.  
SCALE 11.0300

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

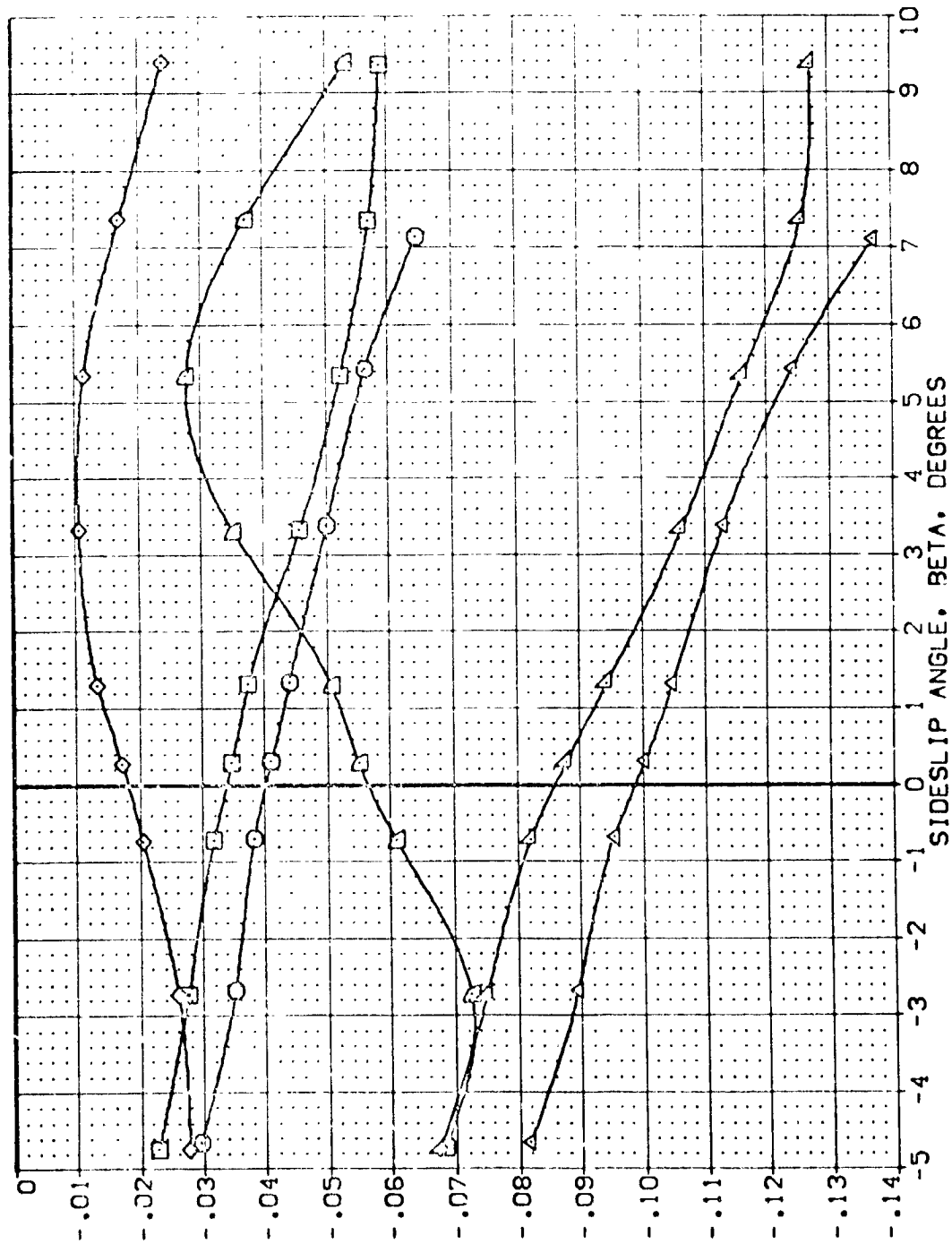


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(YEL025)	ARC 67-747 CAS3C B C M F VI	.000	.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL026)	ARC 67-747 CAS3C B C M F VI	10.000	.000	-11.700	25.000	LREF 14.2440 IN.
(YEL027)	ARC 67-747 CAS3C B C M F VI	20.000	.000	-11.700	25.000	EREF 28.1004 IN.
(YEL012)	ARC 67-747 CAS3C B C M F VI	.000	.000	-11.700	55.000	XMRP 32.3010 IN.
(YEL013)	ARC 67-747 CAS3C B C M F VI	10.000	.000	-11.700	55.000	YMRP 11.2500 IN.
(YEL014)	ARC 67-747 CAS3C B C M F VI	20.000	.000	-11.700	55.000	ZMRP 11.2500 IN.
						SCALE .0000 SCALE

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

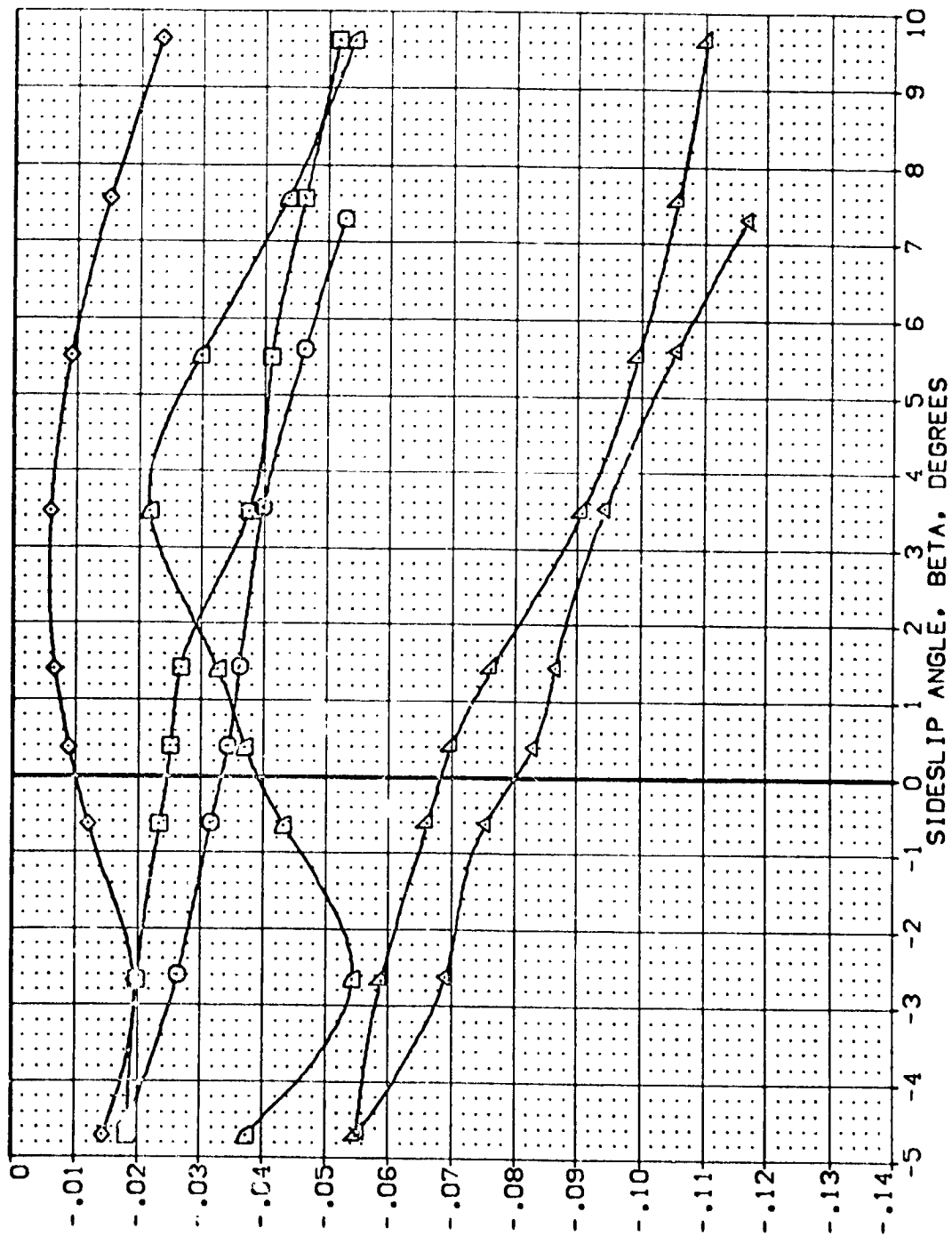


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOONK	REFERENCE INFORMATION
[YEL005]	ARC 67-747 CASSE B C M F V	0.000	0.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[YEL006]	ARC 67-747 CASSE B C M F V	10.000	0.000	-11.700	25.000	LREF 14.2443 IN.
[YEL007]	ARC 67-747 CASSE B C M F V	20.000	0.000	-11.700	25.000	BREF 29.1001 IN.
[YEL012]	ARC 67-747 CASSE B C M F V	0.000	0.000	-11.700	55.000	XREF 32.0010 IN.
[YEL013]	ARC 67-747 CASSE B C M F V	10.000	0.000	-11.700	55.000	YREF 0.0000 IN.
[YEL014]	ARC 67-747 CASSE B C M F V	20.000	0.000	-11.700	55.000	ZREF 11.2500 IN.

SCALE

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

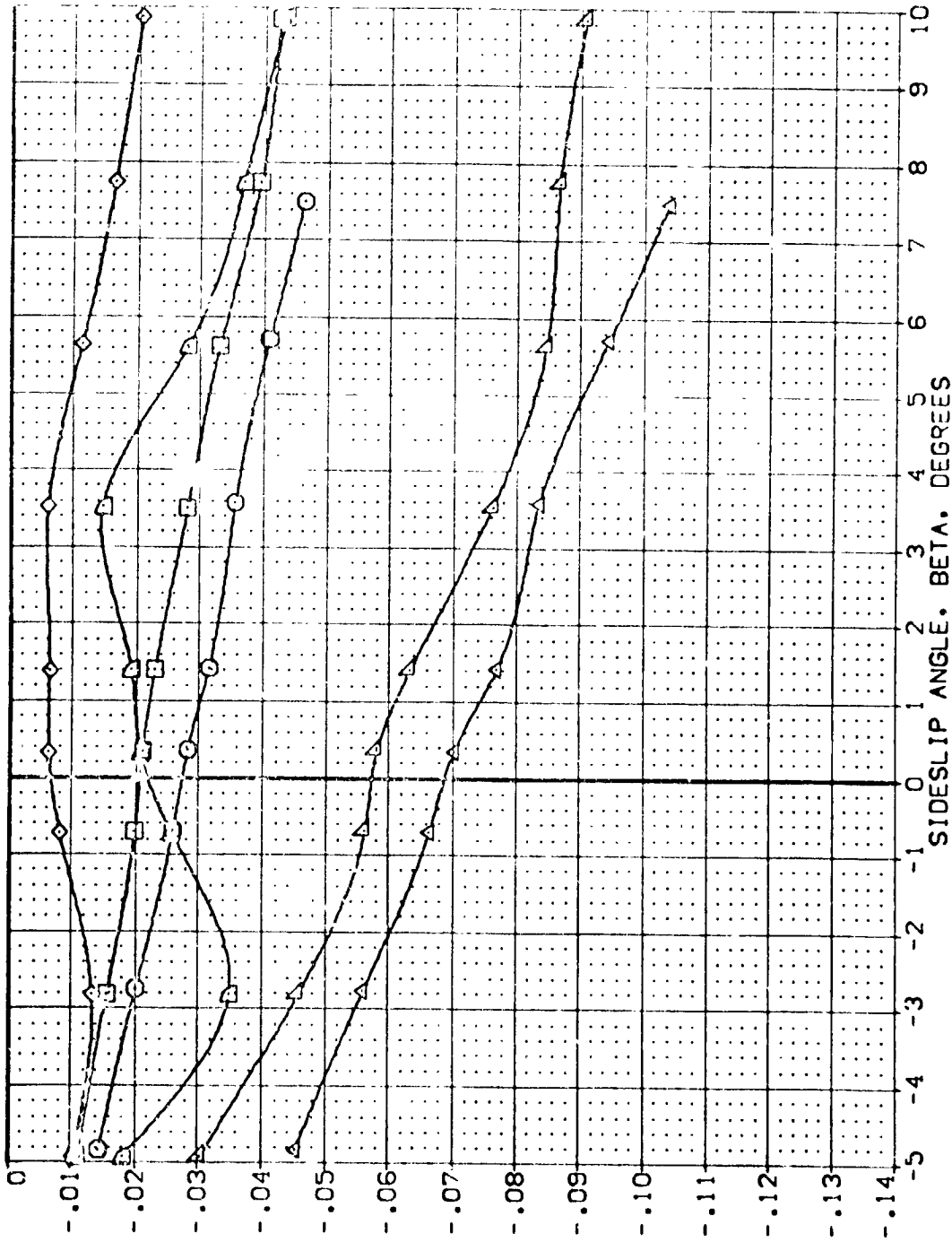


FIG. 32 RUDDER HINGE MOMENTS, 0.0 DEGREES RUDDER  
(C)MACH = 3.50

DATA SET SYMBL	CONFIGURATION DESCRIPTION	NOTES	ALPHA	RUDDER	BD/LAP	SPDRBK	REFERENCE INFORMATION
[YEL005]	ARC 07-747 0A50C B C H F VI	V	0.00	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[YEL006]	ARC 07-747 0A50C B C H F VI	V	10.00	-10.000	-11.700	25.000	UREF 14.2440 IN.
[YEL007]	ARC 07-747 0A50C B C H F VI	V	20.00	-10.000	-11.700	25.000	BREF 28.1004 IN.
[YEL008]	ARC 07-747 0A50C B C H F VI	V	10.00	-10.000	-11.700	55.000	XMRP 32.3010 IN.
[YEL009]	ARC 07-747 0A50C B C H F VI	V	10.00	-10.000	-11.700	55.000	YMRP .0000 IN.
[YEL010]	ARC 07-747 0A50C B C H F VI	V	20.00	-10.000	-11.700	55.000	ZMRP 11.2500 IN.
[YEL011]	ARC 07-747 0A50C B C H F VI	V					SCALE .0300

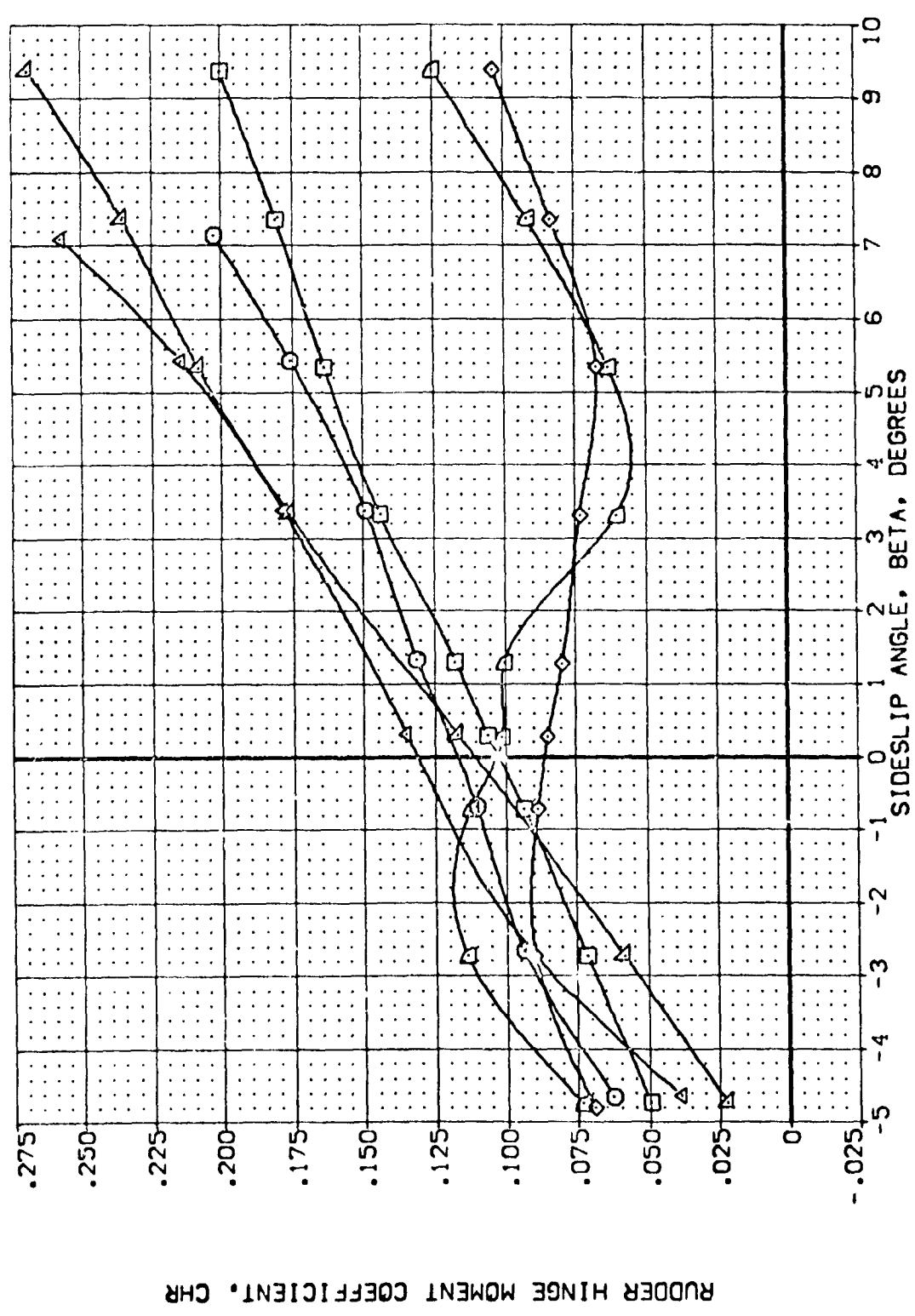


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPDRK	REFERENCE INFORMATION
(YEL005)	ARC 87-747 BAS3C B C M F VI	.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL006)	ARC 87-747 BAS3C B C M F VI	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
(YEL007)	ARC 87-747 BAS3C B C M F VI	20.000	-10.000	-11.700	25.000	EREF 28.1004 IN.
(YEL029)	ARC 87-747 BAS3C B C M F VI	.000	-10.000	-11.700	55.000	XREF 32.3010 IN.
(YEL030)	ARC 87-747 BAS3C B C M F VI	10.000	-10.000	-11.700	55.000	YREF 0.000 IN.
(YEL031)	ARC 87-747 BAS3C B C M F VI	20.000	-10.000	-11.700	55.000	ZREF 11.2500 IN.
						SCALE .0300

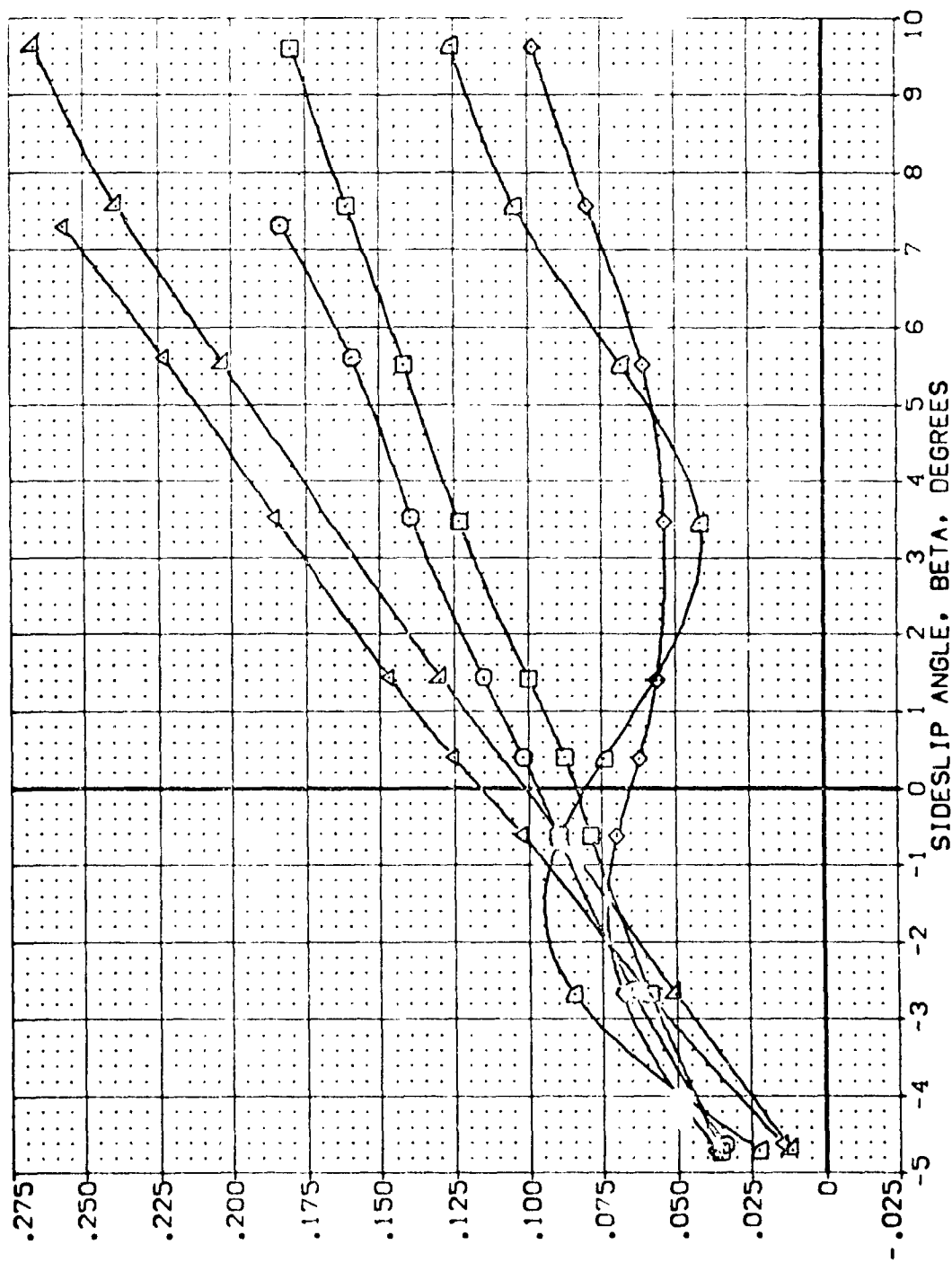


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPDRK	REFERENCE INFORMATION
(YEL005)	ARC 07-747 0A53C B C M F V1	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL006)	ARC 07-747 0A53C B C M F V1	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
(YEL007)	ARC 07-747 0A53C B C M F V1	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
(YEL008)	ARC 07-747 0A53C B C M F V1	10.000	-10.000	-11.700	55.000	XMPP 32.3010 IN.
(YEL009)	ARC 07-747 0A53C B C M F V1	10.000	-10.000	-11.700	55.000	YMPP 0.000 IN.
(YEL010)	ARC 07-747 0A53C B C M F V1	20.000	-10.000	-11.700	55.000	ZMPP 11.2500 IN.
						SCALE 0.000 SCALE

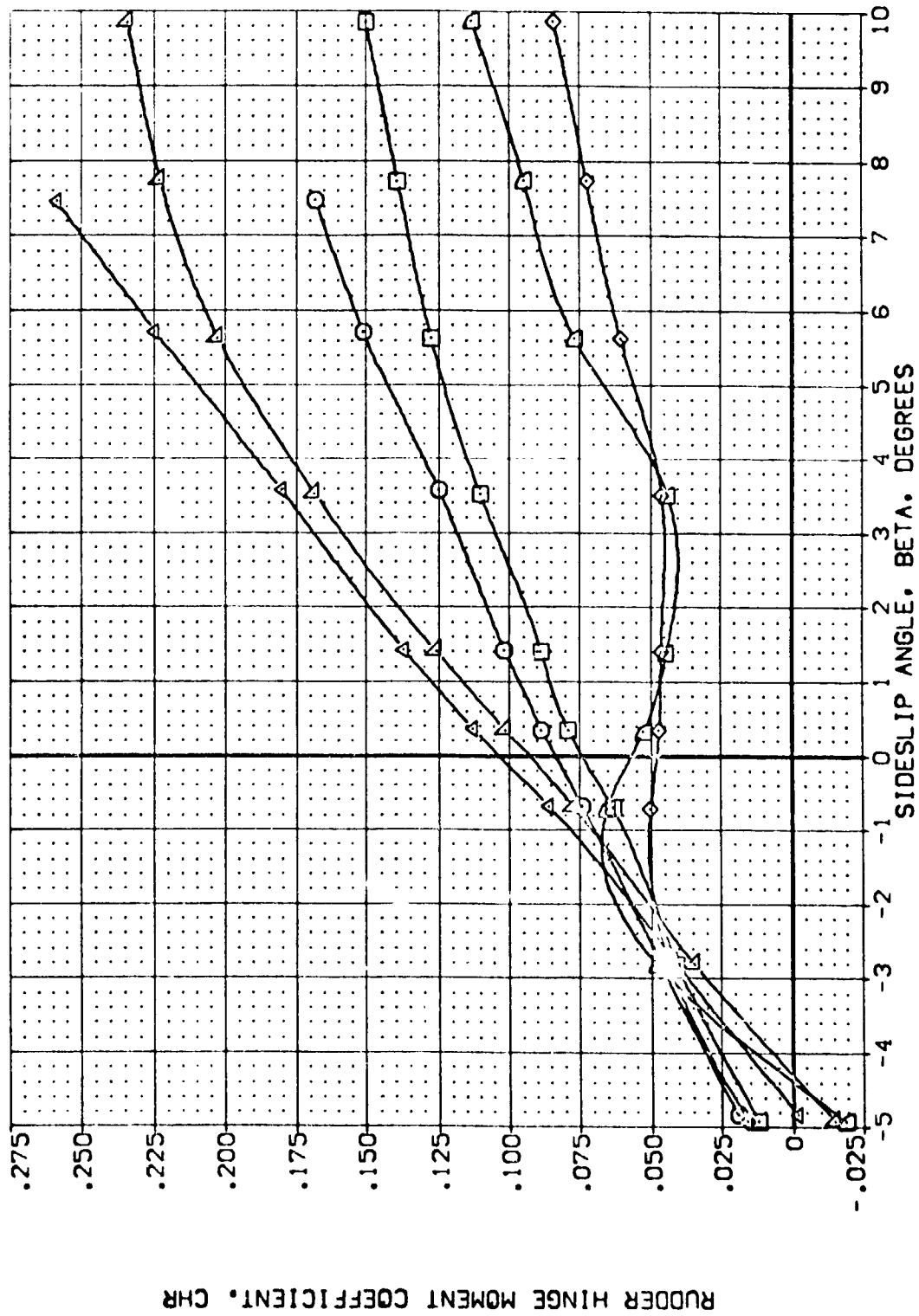


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(C)MACH = 3.50

DATA SET SYMB.	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOF LAP	SPOBRK	REFERENCE INFORMATION
[YEL005]	ARC 67-747 BA55C B C M F VI	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[YEL006]	ARC 67-747 BA55C B C M F VI	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
[YEL007]	ARC 67-747 BA55C B C M F VI	20.000	-10.000	-11.700	25.000	BREF 23.1004 IN.
[YEL029]	ARC 67-747 BA55C B C M F VI	10.000	-10.000	-11.700	55.000	XMRP 32.3010 IN.
[YEL030]	ARC 67-747 BA55C B C M F VI	10.000	-10.000	-11.700	55.000	YMRP 11.0000 IN.
[YEL031]	ARC 67-747 BA55C B C M F VI	20.000	-10.000	-11.700	55.000	ZMRP 11.0000 IN.
						SCALE

UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

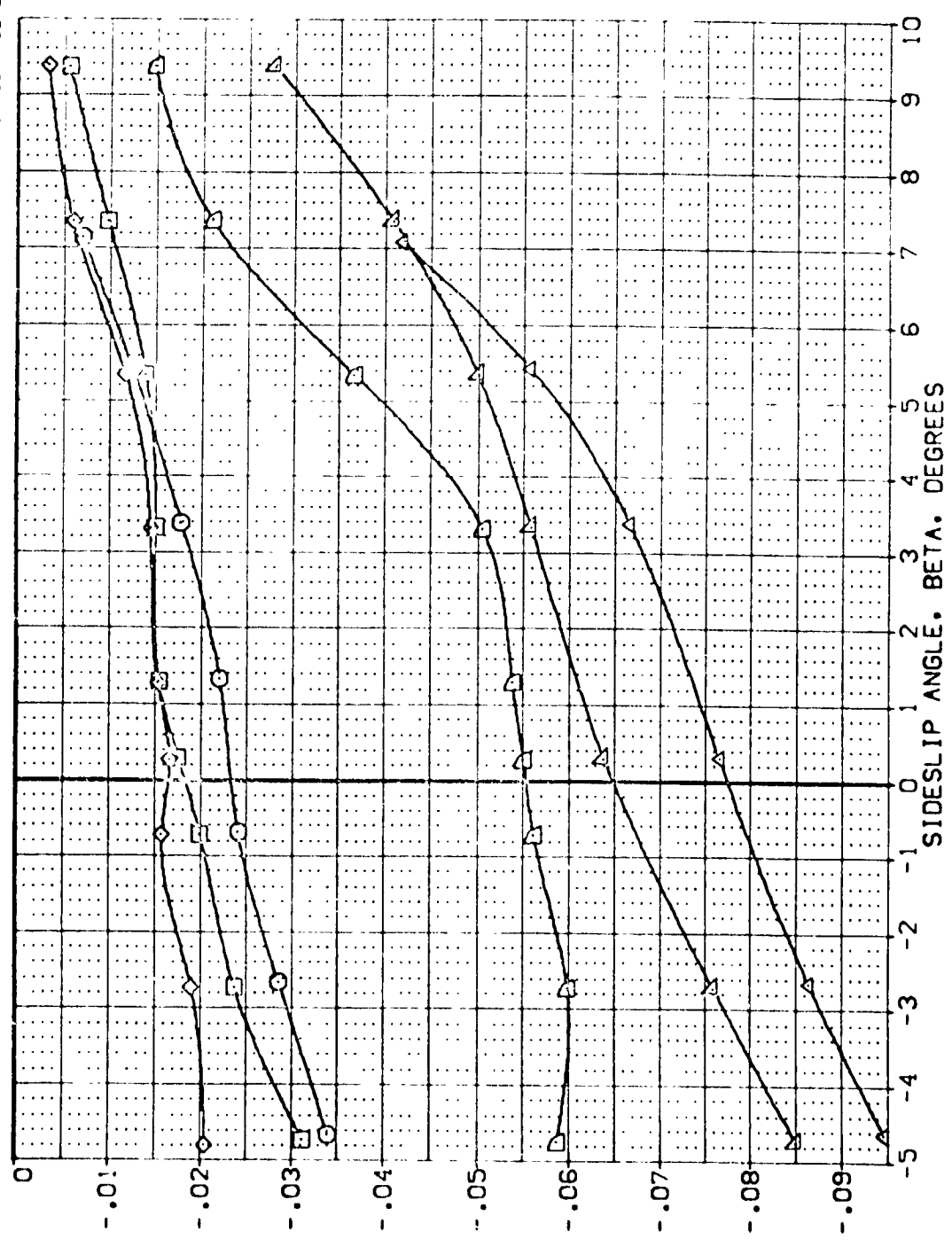


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOTES	ALPHA	RUDDER	BD/LAP	SPOBRN	REFERENCE INFORMATION
(YEL005)	ARC 87-747 CASCC B C H F VI	V	0.000	-10.000	-11.700	25.000	SREF 2.4210 50.07
(YEL006)	ARC 87-747 CASCC B C H F VI	V	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
(YEL007)	ARC 87-747 CASCC B C H F VI	V	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
(YEL008)	ARC 87-747 CASCC B C H F VI	V	0.000	-10.000	-11.700	55.000	XREF 32.3010 IN.
(YEL009)	ARC 87-747 CASCC B C H F VI	V	10.000	-10.000	-11.700	55.000	YREF 0.0000 IN.
(YEL010)	ARC 87-747 CASCC B C H F VI	V	20.000	-10.000	-11.700	55.000	ZREF 11.2500 IN.
						SCALE	SCALE

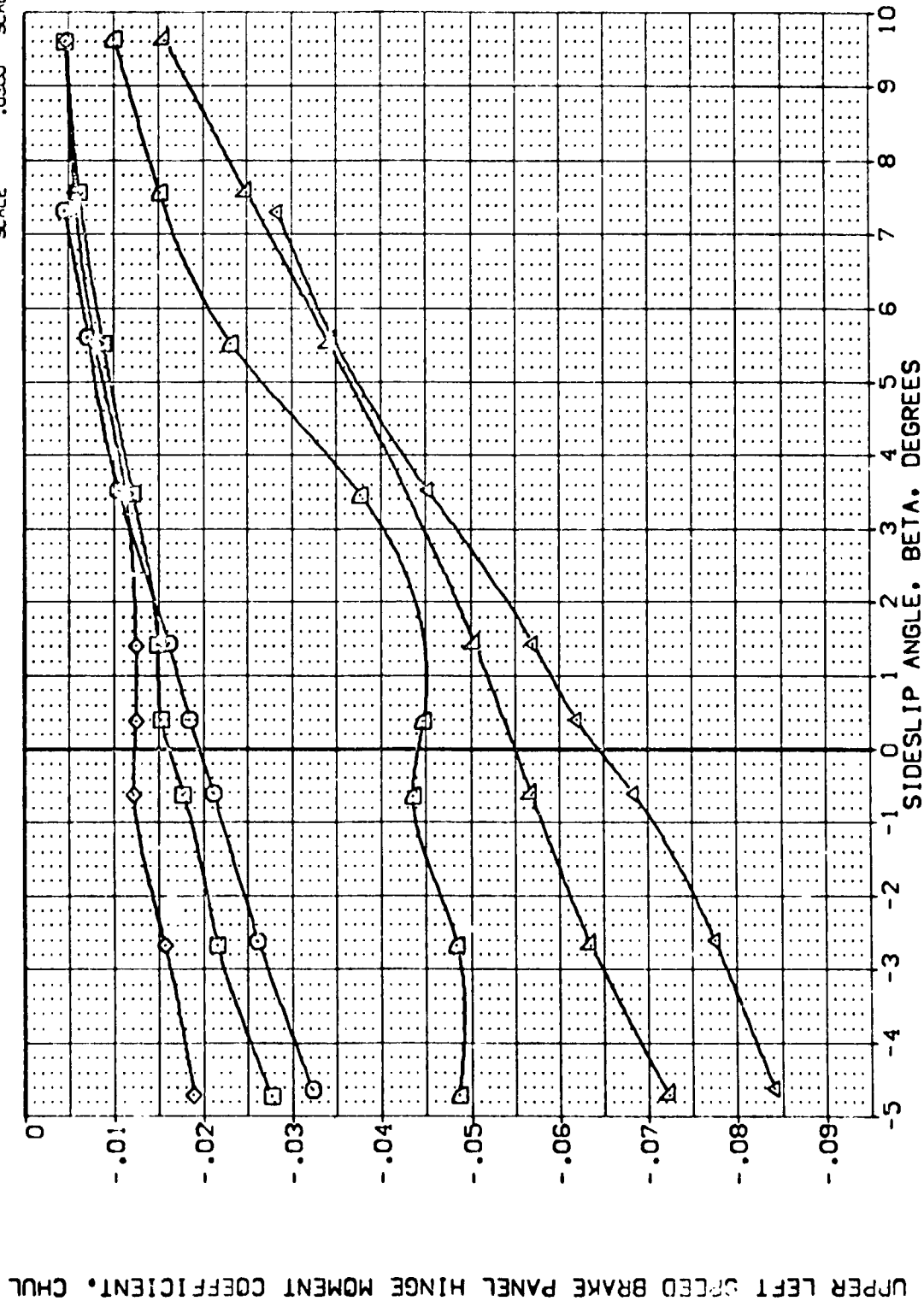


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDLAP	SPOBRK	REFERENCE INFORMATION
[YEL035]	ARC 87-747 OAS3C B C M F VI	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[YEL036]	ARC 87-747 OAS3C B C M F VI	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
[YEL037]	ARC 87-747 OAS3C B C M F VI	20.000	-10.000	-11.700	25.000	BREF 29.1004 IN.
[YEL038]	ARC 87-747 OAS3C B C M F VI	10.000	-10.000	-11.700	55.000	XREF 32.3010 IN.
[YEL039]	ARC 87-747 OAS3C B C M F VI	10.000	-10.000	-11.700	55.000	YREF 11.2600 IN.
[YEL040]	ARC 87-747 OAS3C B C M F VI	20.000	-10.000	-11.700	55.000	ZREF 11.2600 IN.
[YEL041]	ARC 87-747 OAS3C B C M F VI					SCALE

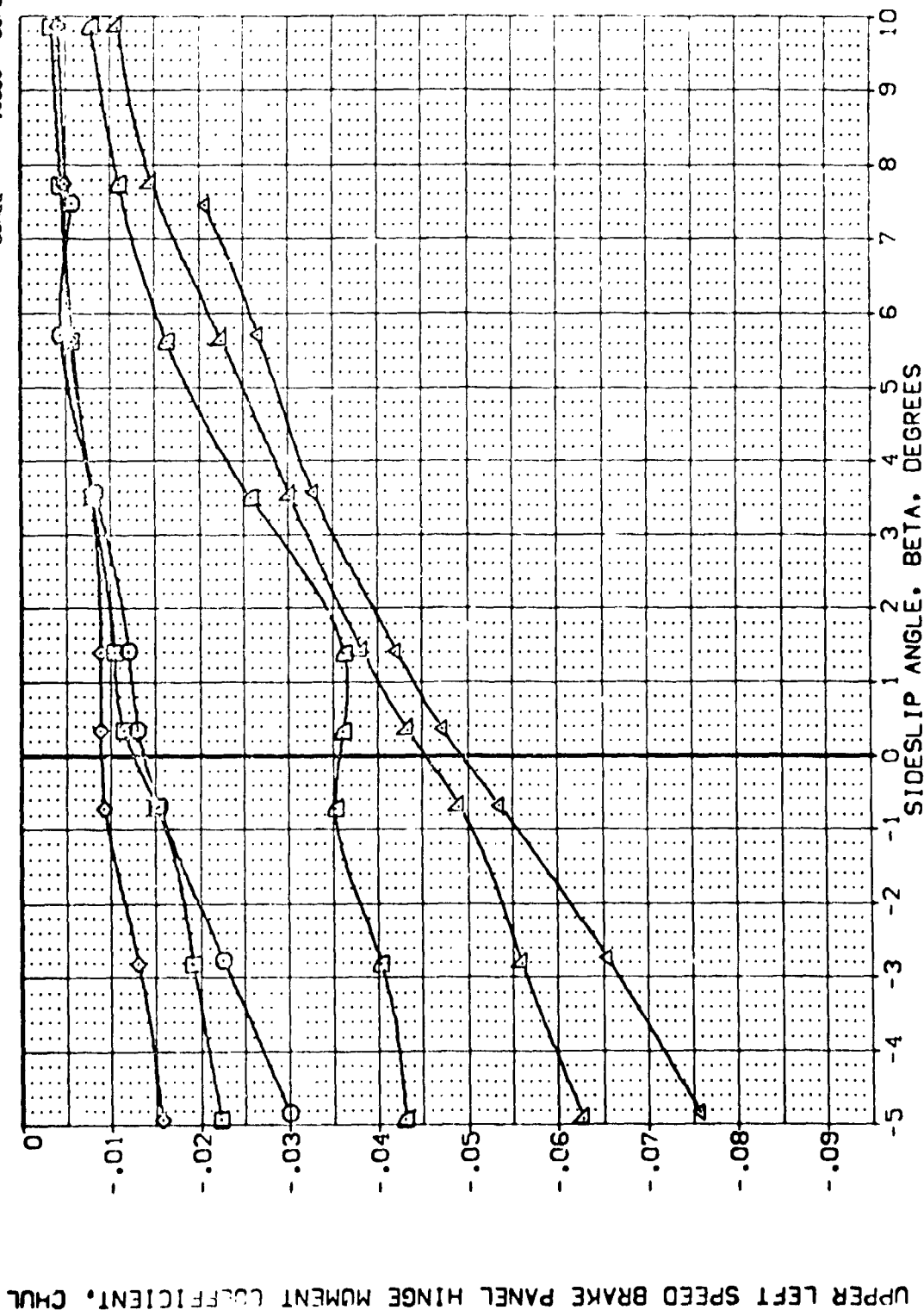


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(C)MACH = 3.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VEL005)	ARC 87-747 CAS30 B C M F V1	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(VEL006)	ARC 87-747 CAS30 B C M F V1	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
(VEL007)	ARC 87-747 CAS30 B C M F V1	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
(VEL008)	ARC 87-747 CAS30 B C M F V1	10.000	-10.000	-11.700	55.000	XREF 32.3010 IN.
(VEL009)	ARC 87-747 CAS30 B C M F V1	20.000	-10.000	-11.700	55.000	YREF 11.2500 IN.
(VEL010)	ARC 87-747 CAS30 B C M F V1	20.000	-10.000	-11.700	55.000	ZREF 11.2500 IN.
(VEL011)	ARC 87-747 CAS30 B C M F V1	20.000	-10.000	-11.700	55.000	SCALE 0.000

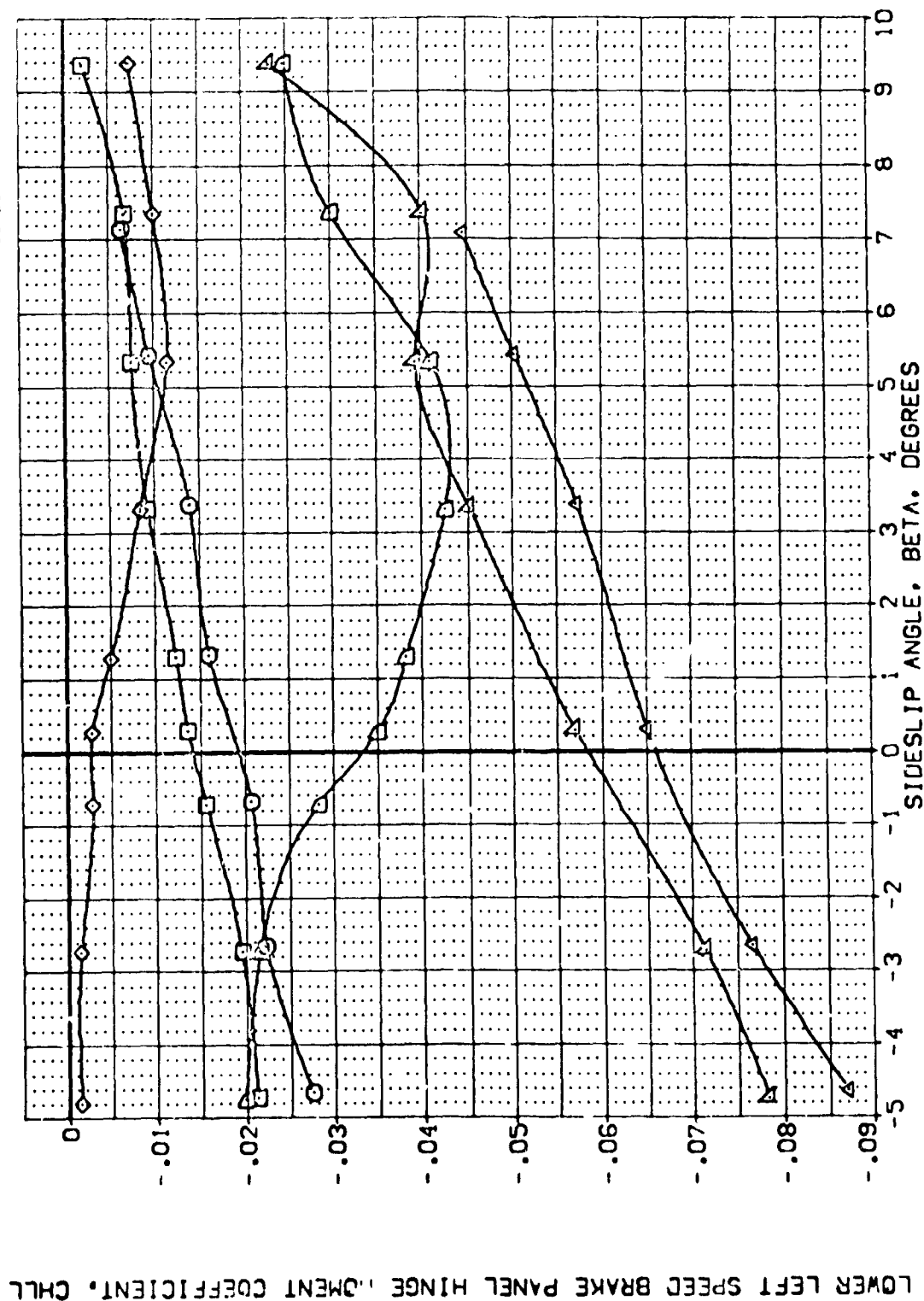
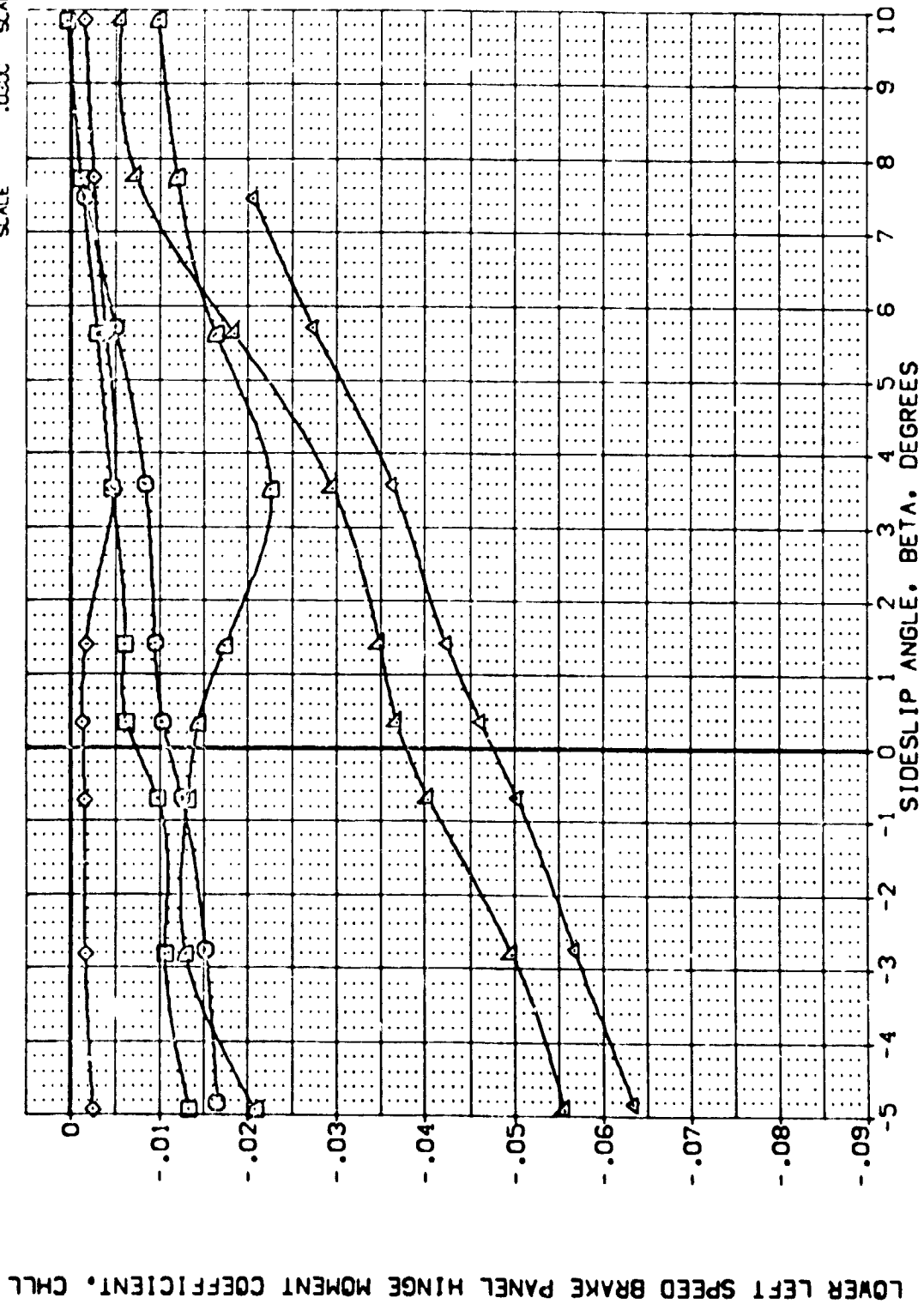


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(A)MACH = 2.50



DATA SET SYMBOL	CONF: GURATION DESCRIPTION	NO.	RV/L	ALPHA	RUDDER	BD/LAP	SPOBRK	REFERENCE INFORMATION
(YEL005)	ARC 07-747 0A53C B C H F V I	V	RV/L	.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL006)	ARC 07-747 0A53C B C H F V I	V	RV/L	.000	-10.000	-11.700	25.000	LREF 14.244C IN.
(YEL007)	ARC 07-747 0A53C B C H F V I	V	RV/L	10.000	-10.000	-11.700	25.000	BREF 28.100A IN.
(YEL008)	ARC 07-747 0A53C B C H F V I	V	RV/L	20.000	-10.000	-11.700	25.000	XREF 32.301C IN.
(YEL009)	ARC 07-747 0A53C B C H F V I	V	RV/L	10.000	-10.000	-11.700	25.000	YREF .000C IN.
(YEL010)	ARC 07-747 0A53C B C H F V I	V	RV/L	20.000	-10.000	-11.700	25.000	ZREF 11.250C IN.
(YEL011)	ARC 07-747 0A53C B C H F V I	V	RV/L	20.000	-10.000	-11.700	25.000	SCALE .030C SCALE



UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPDRK	REFERENCE INFORMATION
(YEL005)	ARC 07-747 CAS3C B C C H F V	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL006)	ARC 07-747 CAS3C B C C H F V	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
(YEL007)	ARC 07-747 CAS3C B C C H F V	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
(YEL029)	ARC 07-747 CAS3C B C C H F V	0.000	-10.000	-11.700	55.000	XMRP 32.3010 IN.
(YEL030)	ARC 07-747 CAS3C B C C H F V	10.000	-10.000	-11.700	55.000	YMRP 0.0000 IN.
(YEL031)	ARC 07-747 CAS3C B C C H F V	20.000	-10.000	-11.700	55.000	ZMRP 11.2500 IN.
						SCALE 0.0000

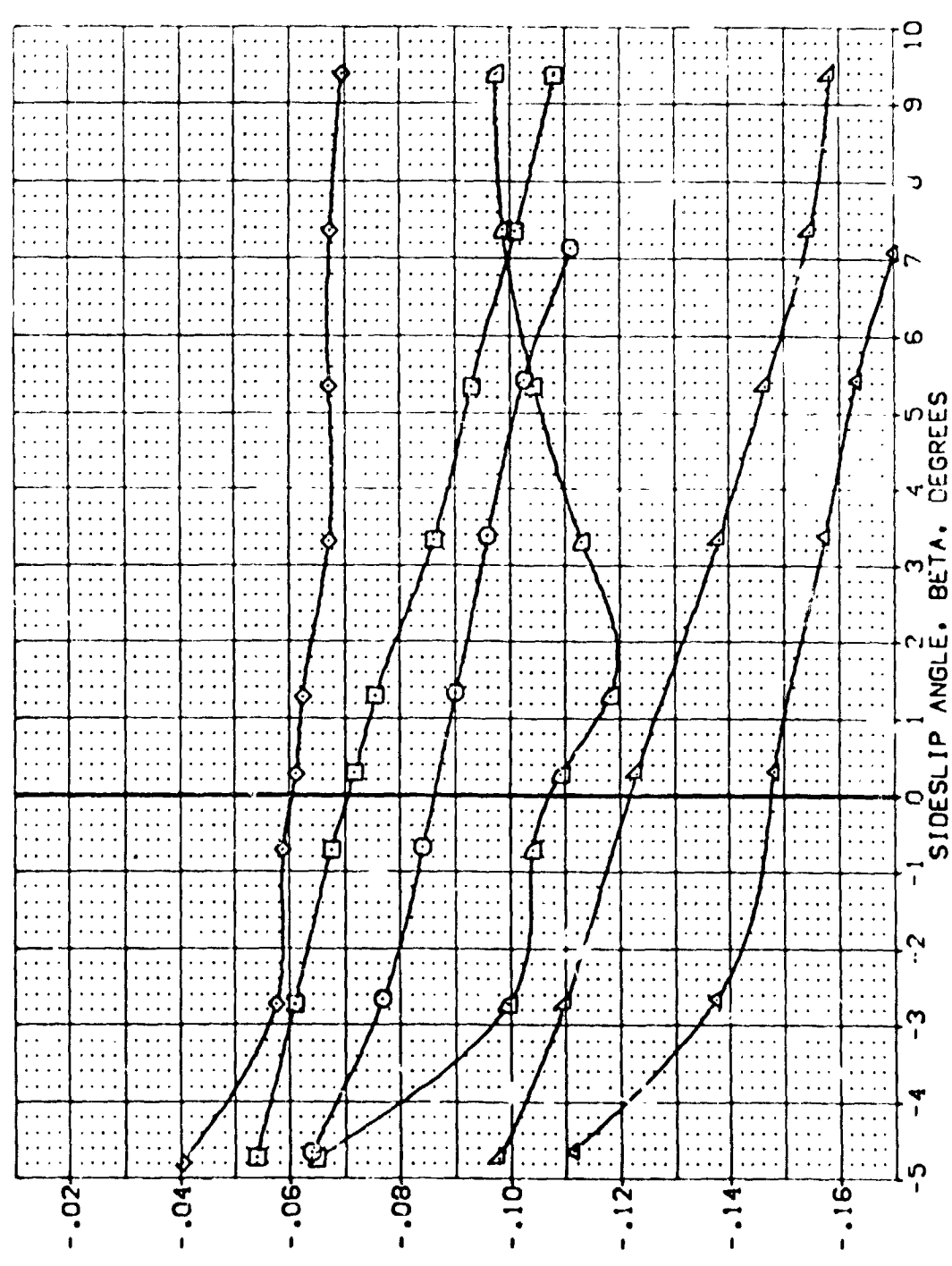


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BFLAP	SPOBRK	REFERENCE INFORMATION
(YEL005)	ARC 67-747 BASC B C H F VI	0.000	-10.000	-11.700	25.000	S REF 2.4210 52. FT.
(YEL006)	ARC 67-747 BASC B C H F VI	10.000	-10.000	-11.700	25.000	L REF 14.2440 IN.
(YEL007)	ARC 67-747 BASC B C H F VI	20.000	-10.000	-11.700	25.000	B REF 28.1001 IN.
(YEL008)	ARC 67-747 BASC B C H F VI	10.000	-10.000	-11.700	55.000	X REF 32.3010 IN.
(YEL009)	ARC 67-747 BASC B C H F VI	10.000	-10.000	-11.700	55.000	Y REF 11.0200 IN.
(YEL010)	ARC 67-747 BASC B C H F VI	20.000	-10.000	-11.700	55.000	Z REF 11.0200 IN.
(YEL031)						SCALE .0000

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

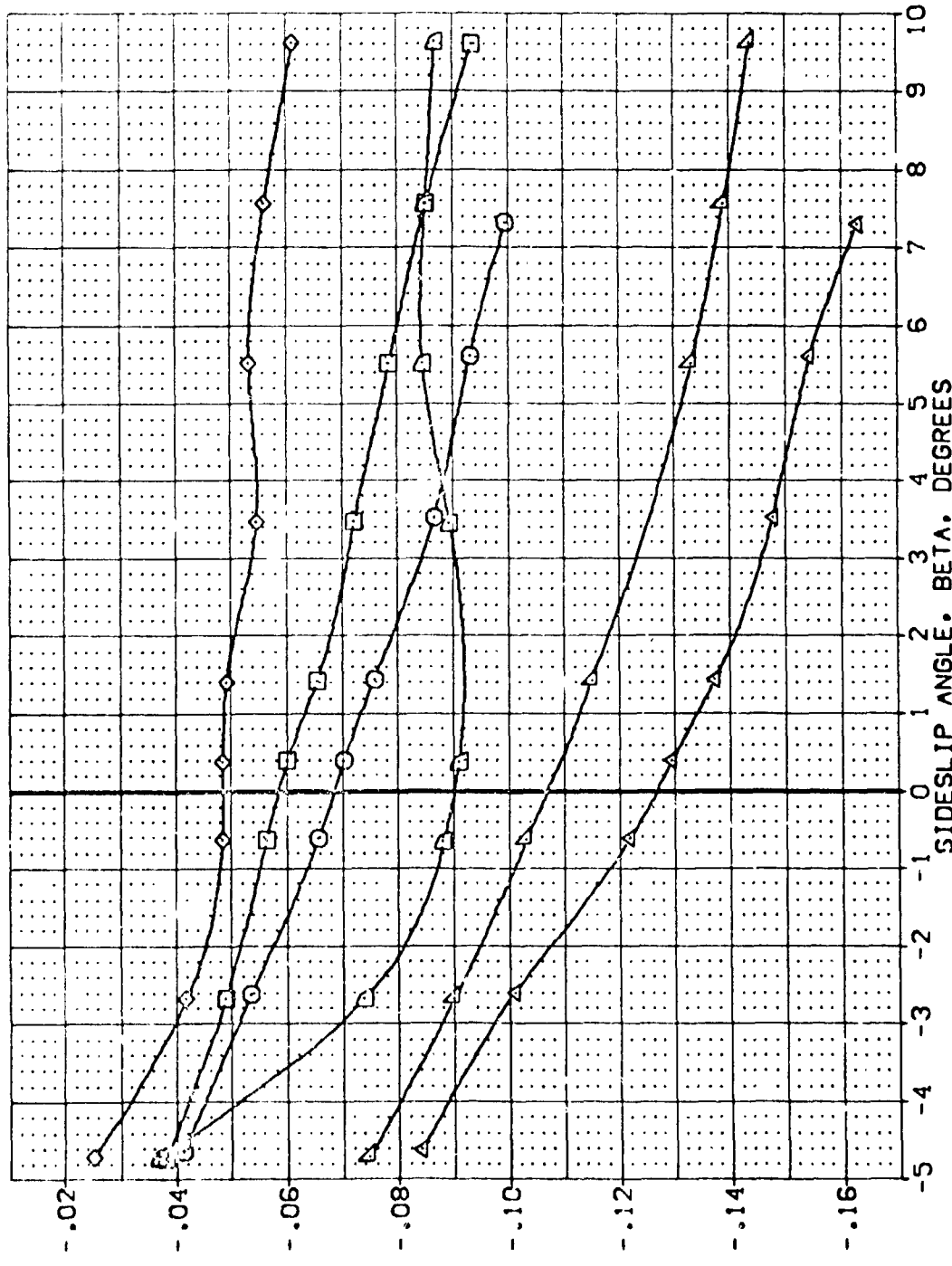


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON	RV/L	ALPHA	RUDDER	BDF LAP	SPOBRK	REFERENCE INFORMATION
[YEL035]	ARC 67-747 CAS3C B C C H F V	V	RV/L	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[YEL036]	ARC 67-747 CAS3C B C C H F V	V	RV/L	10.000	-10.000	-11.700	25.000	LREF 14.2410 IN.
[YEL037]	ARC 67-747 CAS3C B C C H F V	V	RV/L	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
[YEL028]	ARC 67-747 CAS3C B C C H F V	V	RV/L	10.000	-10.000	-11.700	25.000	XMPP 32.3010 IN.
[YEL030]	ARC 67-747 CAS3C B C C H F V	V	RV/L	10.000	-10.000	-11.700	25.000	YMPP 11.2010 IN.
[YEL031]	ARC 67-747 CAS3C B C C H F V	V	RV/L	20.000	-10.000	-11.700	25.000	ZMPP 11.2010 IN.
								SCALE .0050

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

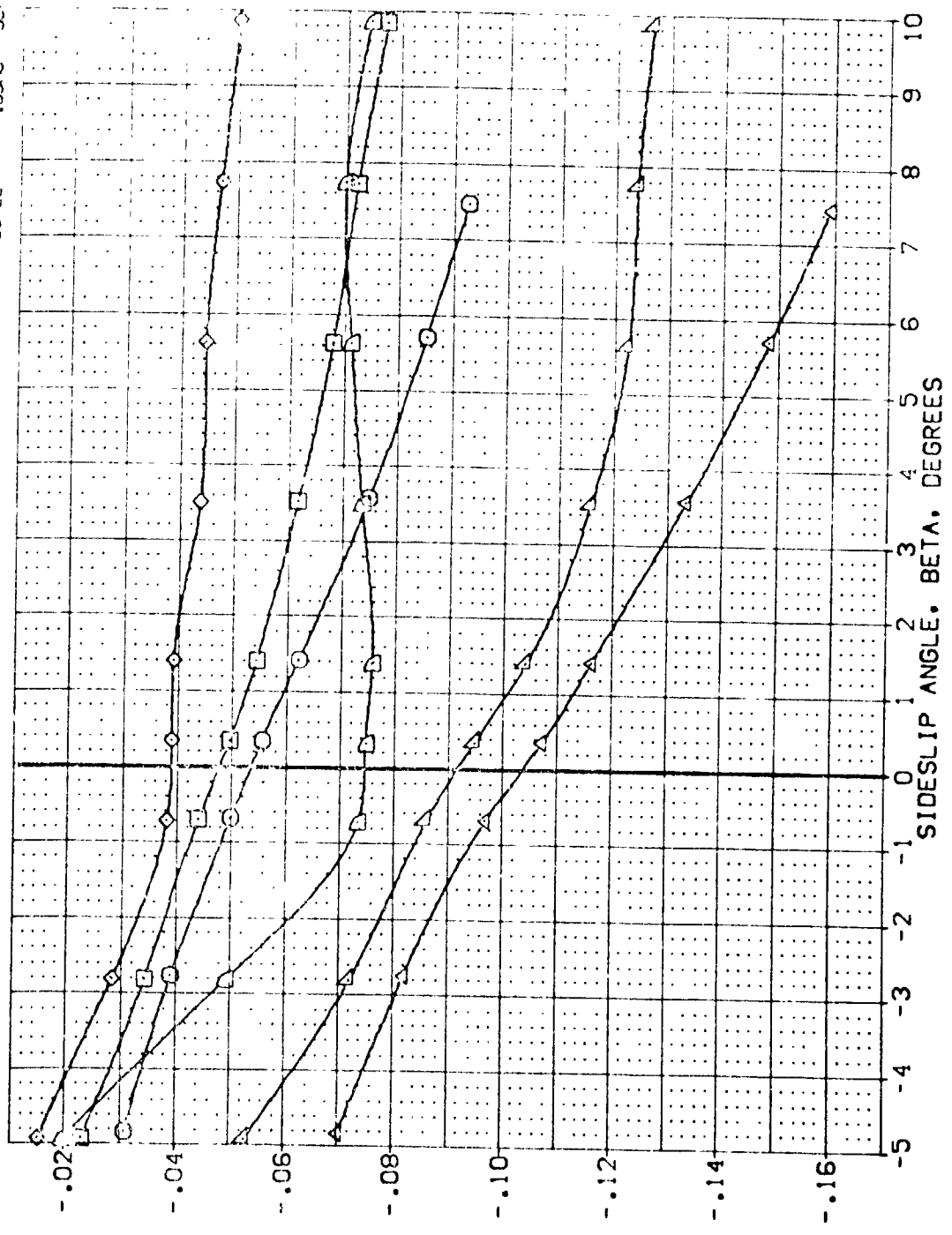


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOTES	ALPHA	RUDDER	BOFLAP	SPEED	REFERENCE INFORMATION
(YEL005)	ARC 87-747 C-130C B C H F VI	V	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL006)	ARC 87-747 C-130C B C H F VI	V	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
(YEL007)	ARC 87-747 C-130C B C H F VI	V	20.000	-10.000	-11.700	25.000	EREF 28.1004 IN.
(YEL028)	ARC 87-747 C-130C B C H F VI	V	0.000	-10.000	-11.700	55.000	XRPP 32.2010 IN.
(YEL030)	ARC 87-747 C-130C B C H F VI	V	10.000	-10.000	-11.700	55.000	YMRP 0.0000 IN.
(YEL031)	ARC 87-747 C-130C B C H F VI	V	20.000	-10.000	-11.700	55.000	ZMRP 11.2500 IN.
							SCALE .0300

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

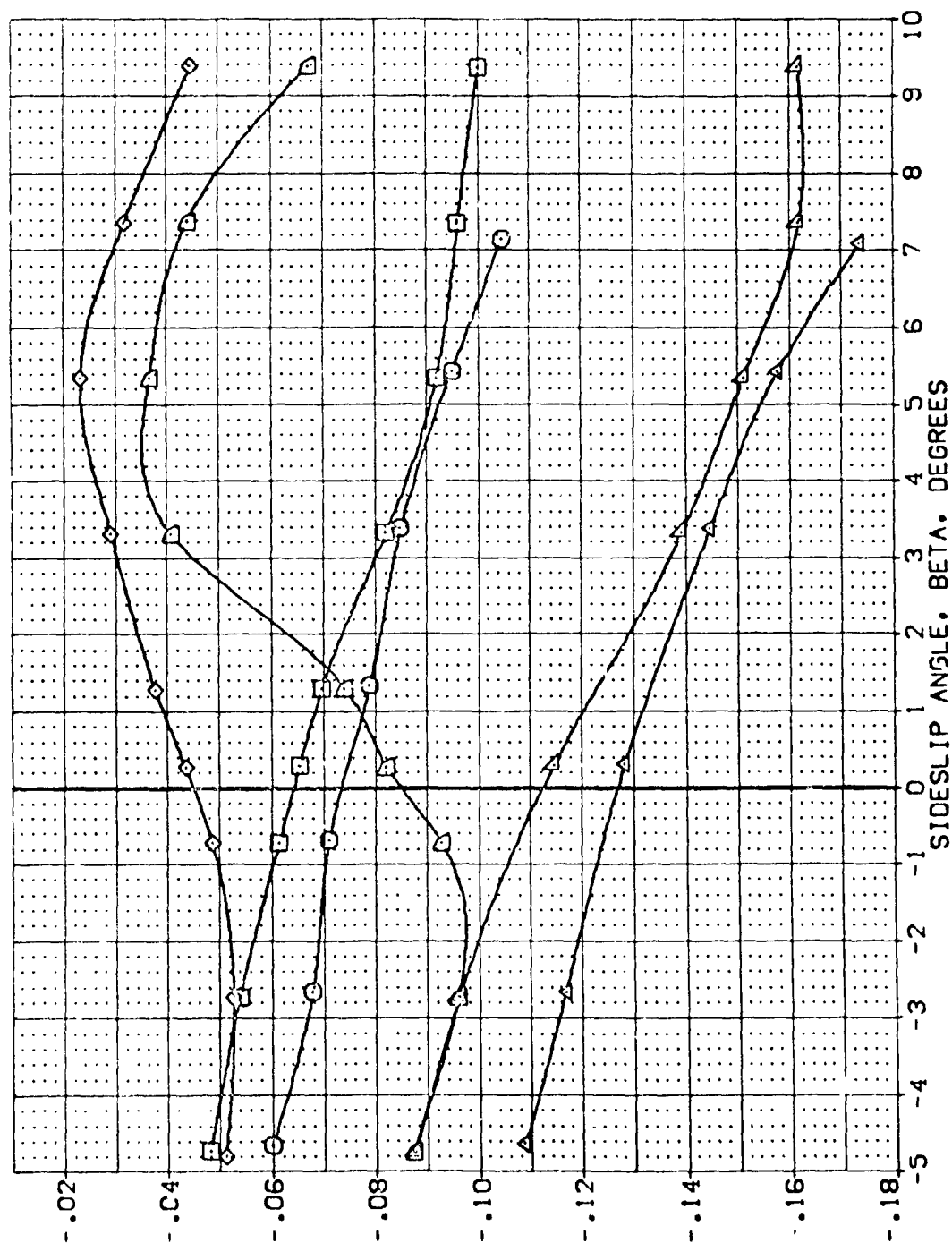


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOT	RV/L	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(YEL005)	ARC 87-747 OAS3C B C H F VI	V	RV/L	.000	-10.000	-11.700	25.000	SREF 2.4210 50.0 FT
(YEL006)	ARC 87-747 OAS3C B C H F VI	V	RV/L	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
(YEL007)	ARC 87-747 OAS3C B C H F VI	V	RV/L	20.000	-10.000	-11.700	25.000	SREF 28.1004 IN.
(YEL008)	ARC 87-747 OAS3C B C H F VI	V	RV/L	10.000	-10.000	-11.700	55.000	XMRP 32.3010 IN.
(YEL009)	ARC 87-747 OAS3C B C H F VI	V	RV/L	10.000	-10.000	-11.700	55.000	YMRP .0000 IN.
(YEL010)	ARC 87-747 OAS3C B C H F VI	V	RV/L	20.000	-10.000	-11.700	55.000	ZMRP 11.2000 IN.
(YEL011)								SCALE

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

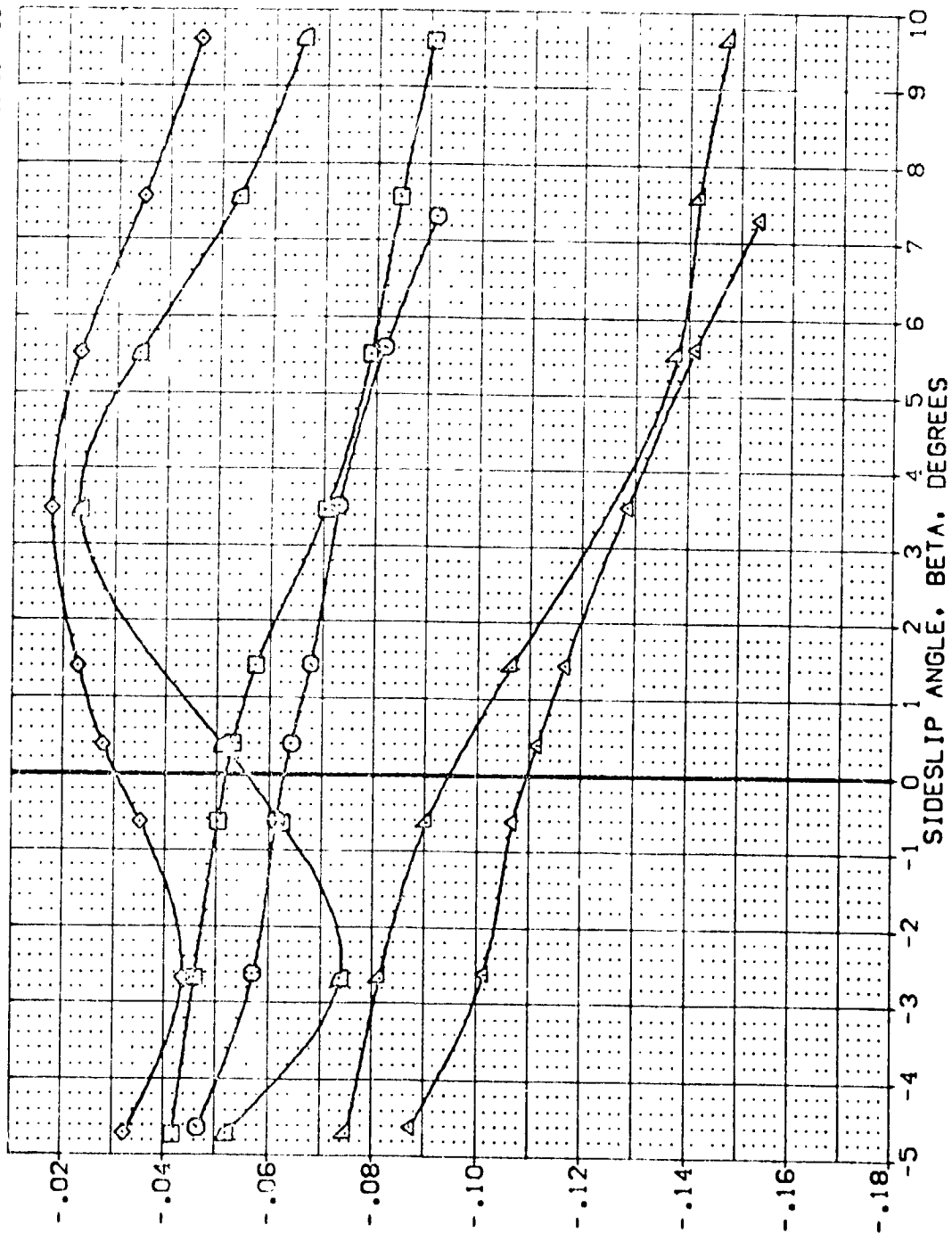


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(B)MACH = 3.00



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPDRBK	REFERENCE INFORMATION
[VELO05]	ARC 07-747 CAS-05	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[VELO06]	ARC 07-747 CAS-06	10.000	-10.000	-11.700	25.000	LREF 14.2440 IN.
[VELO07]	ARC 07-747 CAS-07	20.000	-10.000	-11.700	25.000	BREF 28.1004 IN.
[VELO08]	ARC 07-747 CAS-08	30.000	-10.000	-11.700	55.000	XMRP 32.3010 IN.
[VELO09]	ARC 07-747 CAS-09	40.000	-10.000	-11.700	55.000	YMRP 11.2500 IN.
[VELO10]	ARC 07-747 CAS-10	50.000	-10.000	-11.700	55.000	ZMRP 11.0300 IN.
[VELO11]	ARC 07-747 CAS-11	60.000	-10.000	-11.700	55.000	SCALE

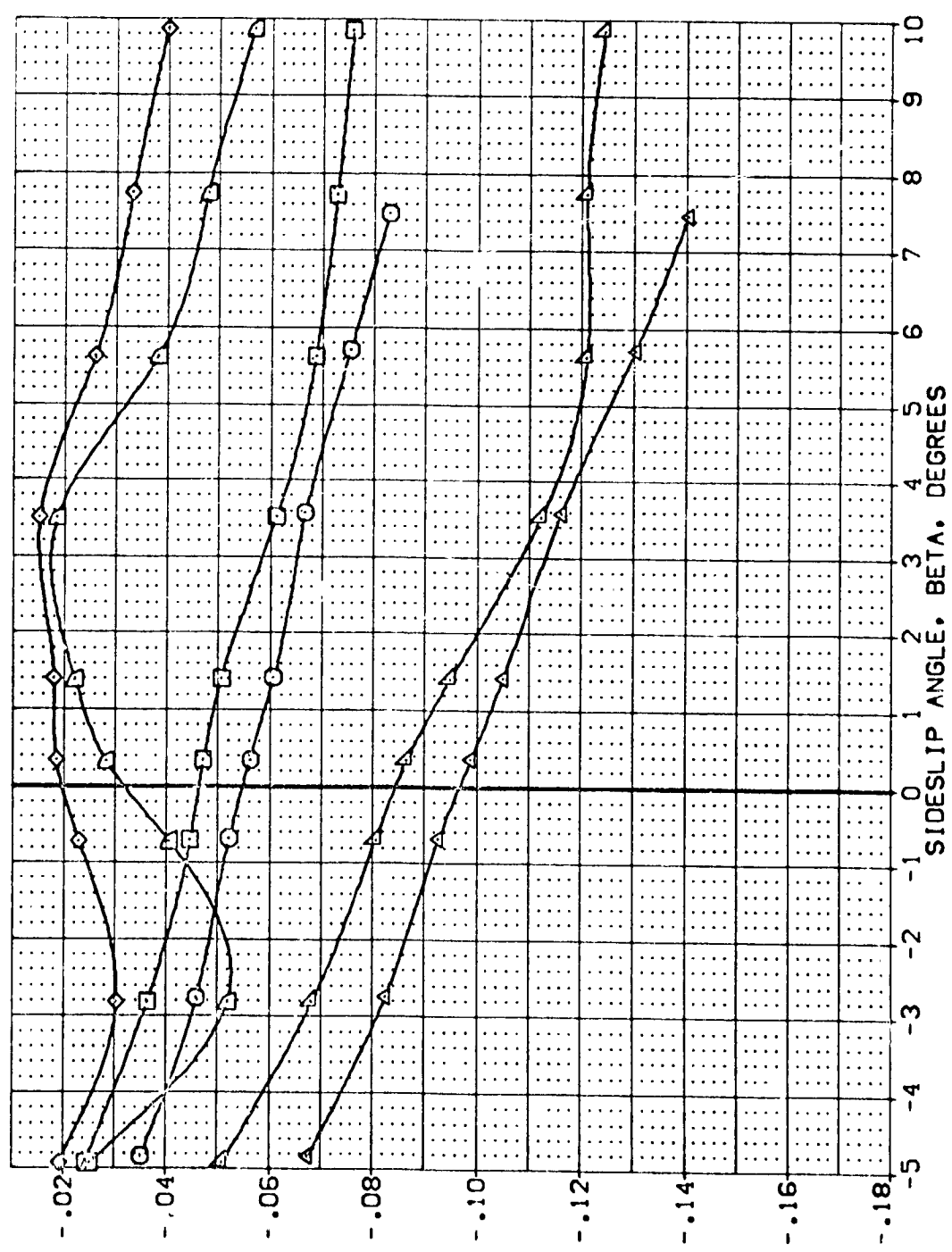


FIG. 33 RUDDER HINGE MOMENTS, -10. DEGREES RUDDER

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEED	REFERENCE INFORMATION
(YEL051)	ARC 67-747 DASSC B C H F VI	0.000	-25.000	-11.700	25.000	SREF 2.4210 52.1 FT.
(YEL052)	ARC 67-747 DASSC B C H F VI	10.000	-25.000	-11.700	25.000	LREF 14.2440 11.700
(YEL053)	ARC 67-747 DASSC B C H F VI	20.000	-25.000	-11.700	25.000	BREF 28.1004 11.700
(YEL032)	ARC 67-747 DASSC B C H F VI	0.000	-20.000	-11.700	45.000	XMRP 32.2010 11.700
(YEL033)	ARC 67-747 DASSC B C H F VI	10.000	-20.000	-11.700	45.000	YMRP 11.2600 11.700
(YEL034)	ARC 67-747 DASSC B C H F VI	20.000	-20.000	-11.700	45.000	ZMRP 11.2600 11.700

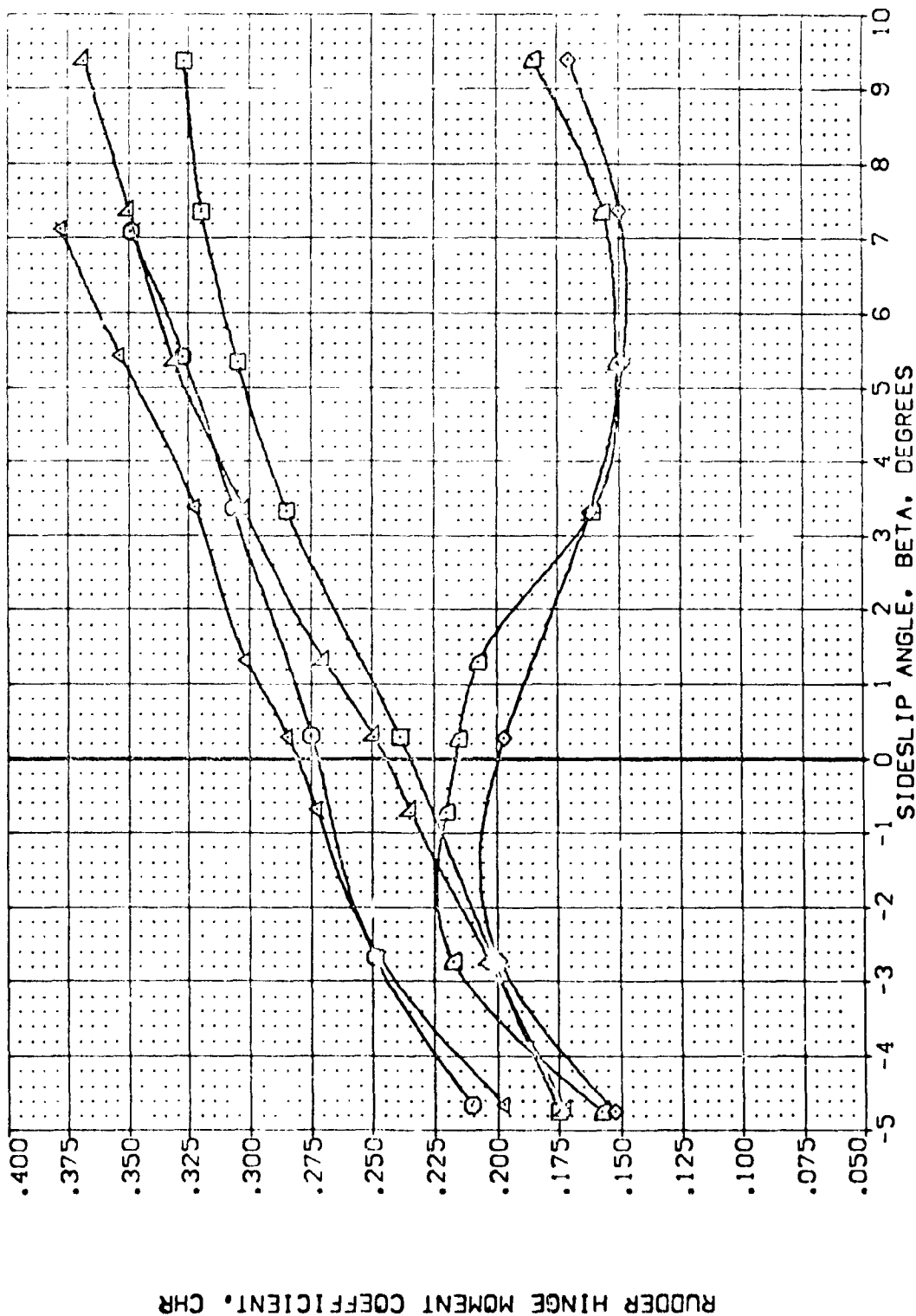


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ALPHA	RUDDER	BDLAP	SPOBRK	REFERENCE INFORMATION
[YEL051]	ARC 67-747 BASEC	B C M F VI	V	.000	-25.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[YEL052]	ARC 67-747 BASEC	B C M F VI	V	10.000	-25.000	-11.700	25.000	LREF 14.2440 IN.
[YEL053]	ARC 67-747 BASEC	B C M F VI	V	20.000	-25.000	-11.700	25.000	BREF 28.1004 IN.
[YEL054]	ARC 67-747 BASEC	B C M F VI	V	.000	-20.000	-11.700	46.000	XMTP 32.3010 IN.
[YEL055]	ARC 67-747 BASEC	B C M F VI	V	10.000	-20.000	-11.700	46.000	YMTP 00.000 IN.
[YEL056]	ARC 67-747 BASEC	B C M F VI	V	20.000	-20.000	-11.700	46.000	ZMTP 11.2500 IN.
								SCALE .0000

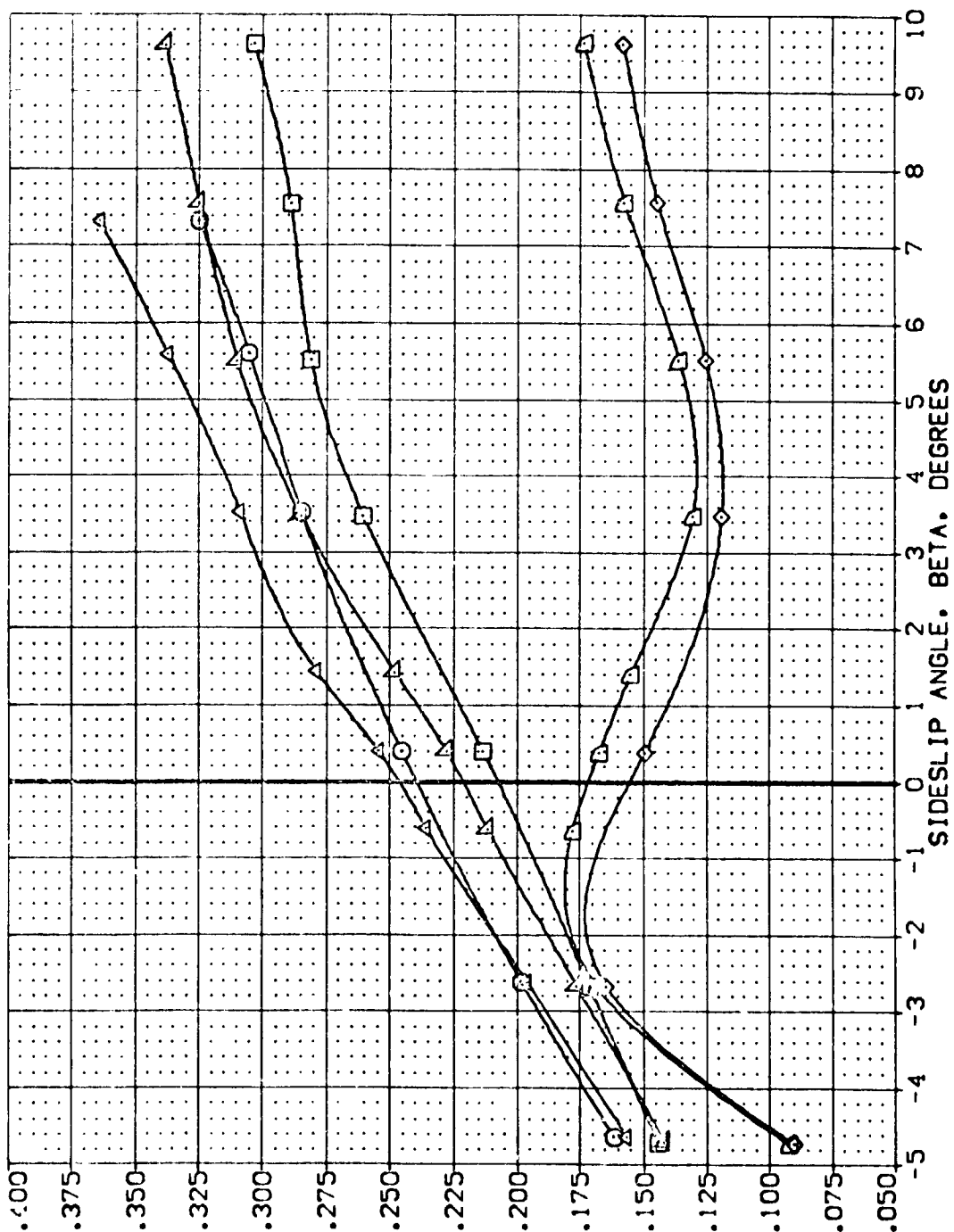


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOTES	ALPHA	RUDDER	BOFLAP	SPODBK	REFERENCE INFORMATION
(YEL051)	ARC 87-747 OASCC B C H F VI	V	.000	-25.000	-11.700	25.000	SREF 2.4210 50.000
(YEL052)	ARC 87-747 OASCC B C H F VI	V	10.000	-25.000	-11.700	25.000	LREF 14.2440 IN.
(YEL053)	ARC 87-747 OASCC B C H F VI	V	20.000	-25.000	-11.700	25.000	BREF 28.1004 IN.
(YEL054)	ARC 87-747 OASCC B C H F VI	V	10.000	-20.000	-11.700	45.000	XMPP 32.3010 IN.
(YEL055)	ARC 87-747 OASCC B C H F VI	V	20.000	-20.000	-11.700	45.000	YMPP 11.2500 IN.
(YEL056)	ARC 87-747 OASCC B C H F VI	V	20.000	-20.000	-11.700	45.000	ZMPP 11.2500 IN.
(YEL057)	ARC 87-747 OASCC B C H F VI	V	20.000	-20.000	-11.700	45.000	SCALE .0000

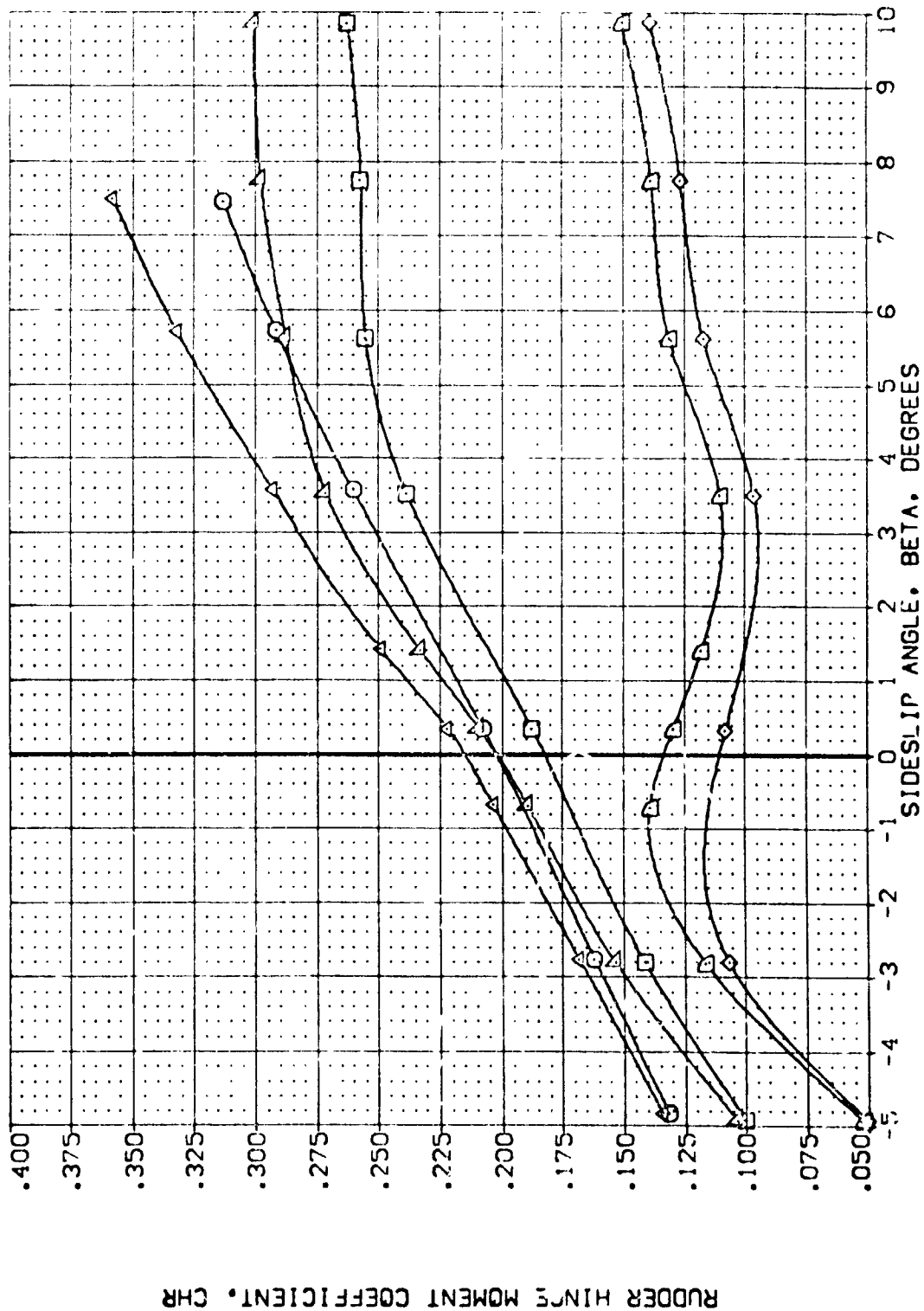


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VEL051)	ARC 87-747	BASCC B C M F VI	0.000	-25.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(VEL052)	ARC 87-747	BASCC B C M F VI	10.000	-25.000	-11.700	25.000	LREF 14.2440 IN.
(VEL053)	ARC 87-747	BASCC B C M F VI	20.000	-25.000	-11.700	25.000	BREF 28.1004 IN.
(VEL032)	ARC 87-747	BASCC B C M F VI	10.000	-20.000	-11.700	45.000	YMRP 32.3010 IN.
(VEL033)	ARC 87-747	BASCC B C M F VI	20.000	-20.000	-11.700	45.000	ZMRP 11.2500 IN.
(VEL034)	ARC 87-747	BASCC B C M F VI	20.000	-20.000	-11.700	45.000	SCALE 0.0300 SCALE

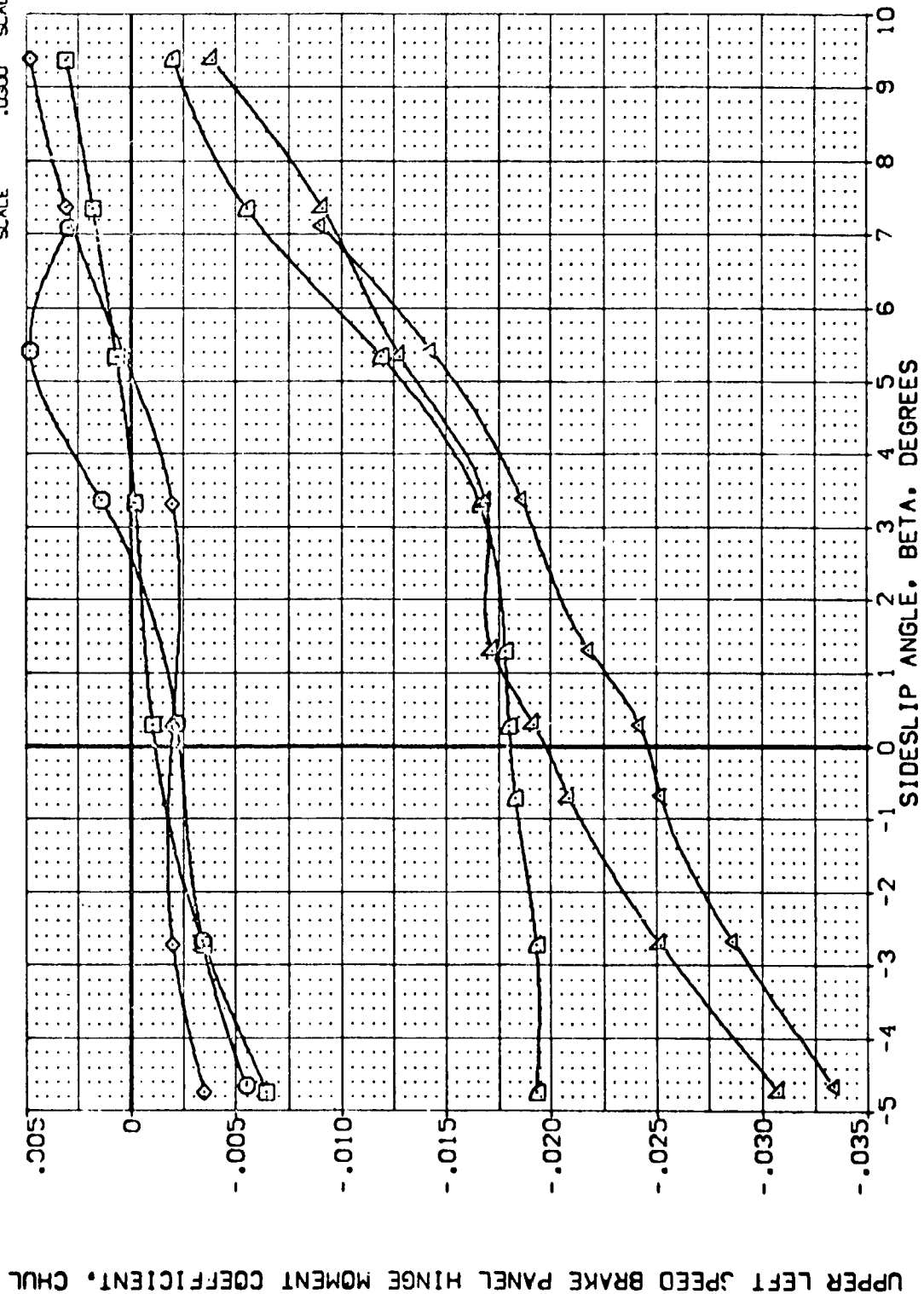


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDELAP	SPOBRK	REFERENCE INFORMATION
(YEL001)	ARC 67-747 D453C B C H F VI	0.000	-25.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL002)	ARC 67-747 D453C B C H F VI	10.000	-25.000	-11.700	25.000	LREF 14.2410 IN.
(YEL003)	ARC 67-747 D453C B C H F VI	20.000	-25.000	-11.700	25.000	BREF 28.1004 IN.
(YEL004)	ARC 67-747 D453C B C H F VI	10.000	-20.000	-11.700	45.000	YMRP 32.3010 IN.
(YEL005)	ARC 67-747 D453C B C H F VI	20.000	-20.000	-11.700	45.000	YMRP 11.0000 IN.
(YEL006)	ARC 67-747 D453C B C H F VI	20.000	-20.000	-11.700	45.000	YMRP 11.2500 IN.
(YEL007)	ARC 67-747 D453C B C H F VI	20.000	-20.000	-11.700	45.000	SCALE .0000

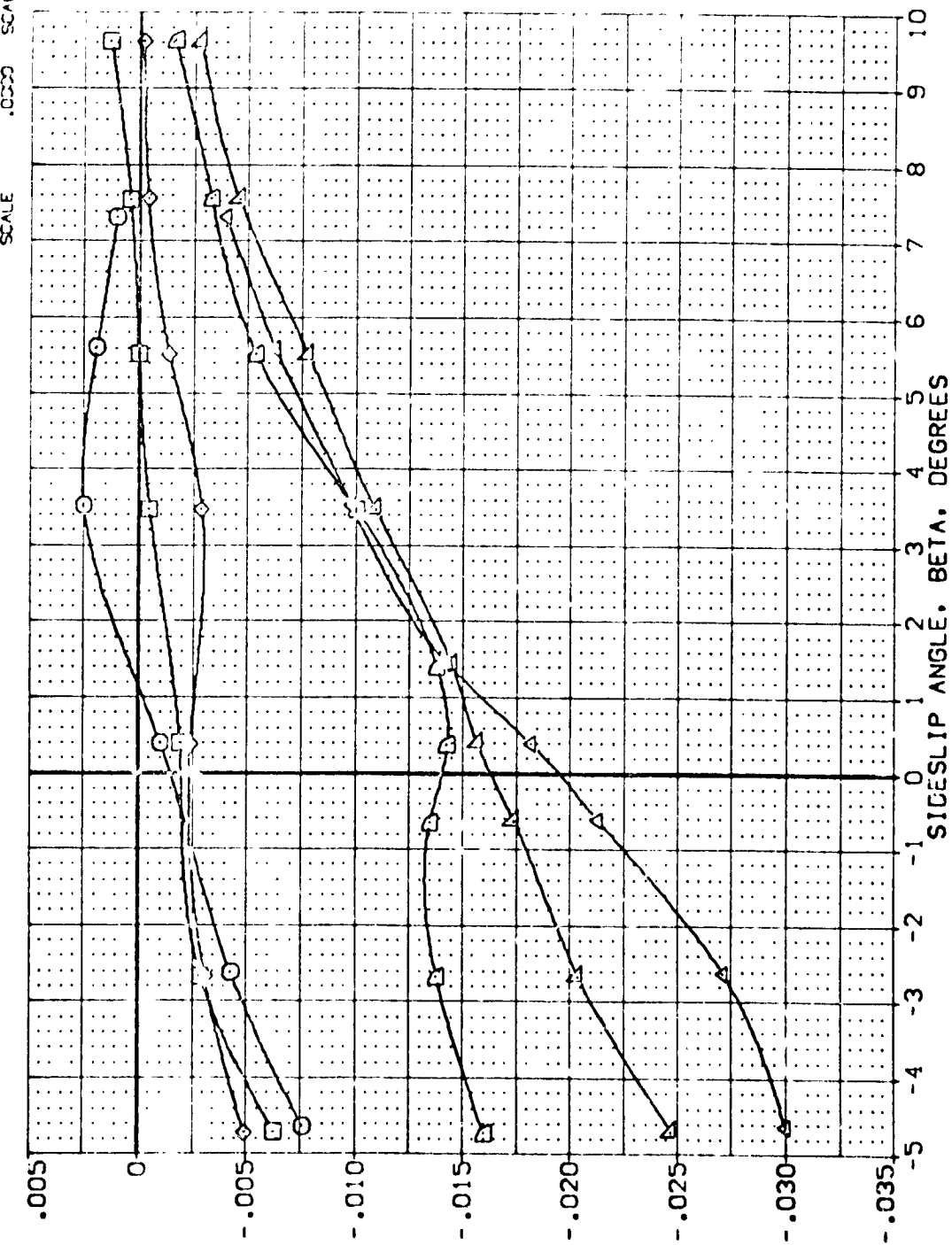


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(B)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	NON.	RV/L	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(YEL051)	○	ARC 67-747 BASC B C M F V I V	NOM.	RV/L	.000	-25.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL052)	×	ARC 67-747 BASC B C M F V I V	NOM.	RV/L	10.000	-25.000	-11.700	25.000	LREF 14.2440 IN.
(YEL053)	×	ARC 67-747 BASC B C M F V I V	NOM.	RV/L	20.000	-25.000	-11.700	25.000	BREF 28.1004 IN.
(YEL032)	△	ARC 67-747 BASC B C M F V I V	NOM.	RV/L	.000	-20.000	-11.700	46.000	ZREF 32.3010 IN.
(YEL033)	△	ARC 67-747 BASC B C M F V I V	NOM.	RV/L	10.000	-20.000	-11.700	46.000	ZREF 32.3010 IN.
(YEL034)	△	ARC 67-747 BASC B C M F V I V	NOM.	RV/L	20.000	-20.000	-11.700	46.000	ZREF 32.3010 IN.
									ZREF 11.2500 IN.
									SCALE .0300

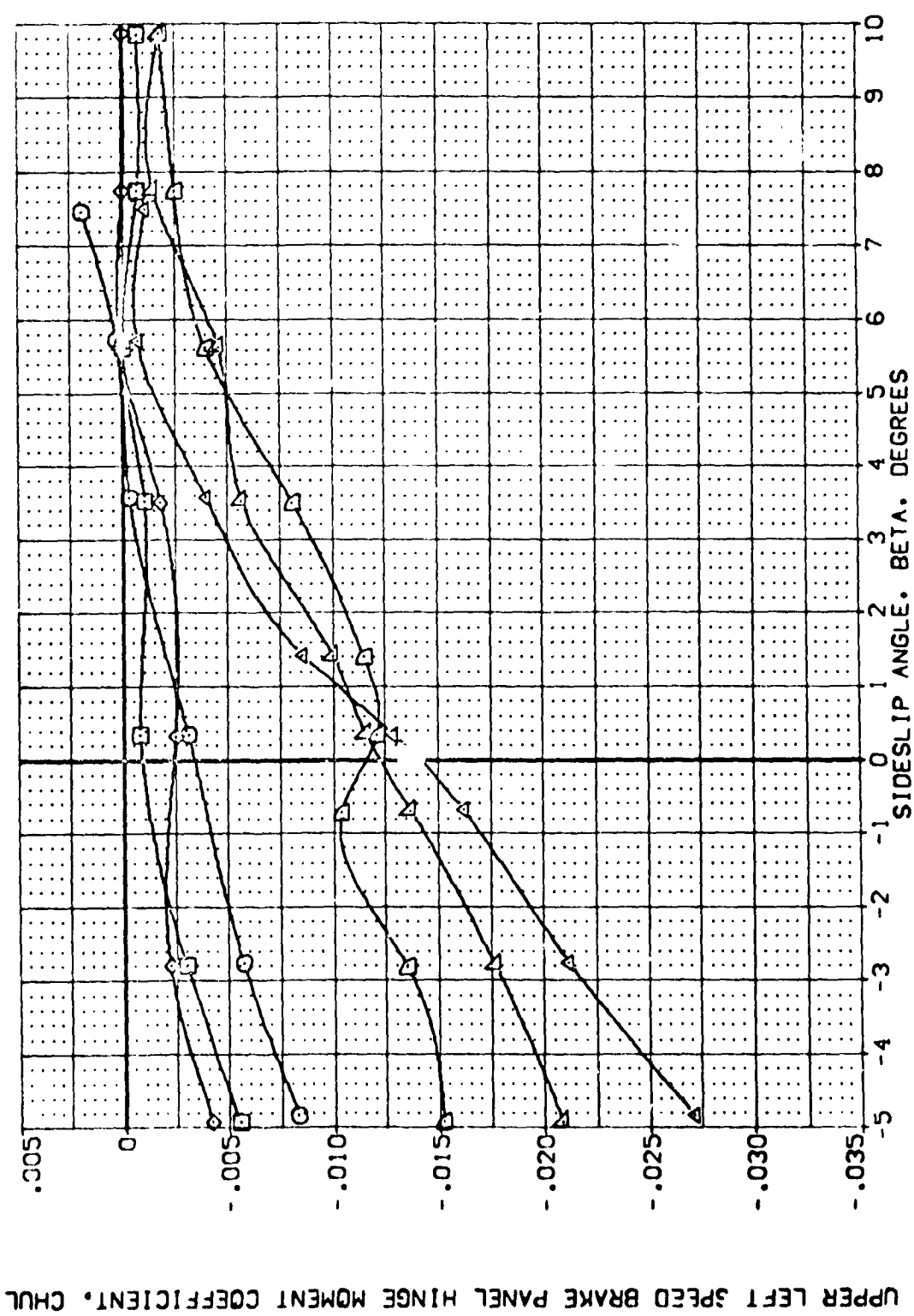


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BO/LAP	SPEED	REFERENCE INFORMATION
(YEL051)	ARC 87-747 CAS3C B C H F VI	0.000	-25.000	-11.700	25.000	SREF 2.4210
(YEL052)	ARC 87-747 CAS3C B C H F VI	10.000	-25.000	-11.700	25.000	LREF 14.2440
(YEL053)	ARC 87-747 CAS3C B C H F VI	20.000	-25.000	-11.700	25.000	BREF 28.1004
(YEL054)	ARC 87-747 CAS3C B C H F VI	10.000	-20.000	-11.700	46.000	XREF 32.3010
(YEL055)	ARC 87-747 CAS3C B C H F VI	10.000	-20.000	-11.700	46.000	YREF 11.0000
(YEL056)	ARC 87-747 CAS3C B C H F VI	10.000	-20.000	-11.700	46.000	ZREF 11.2500
(YEL057)	ARC 87-747 CAS3C B C H F VI	10.000	-20.000	-11.700	46.000	SCALE .0000

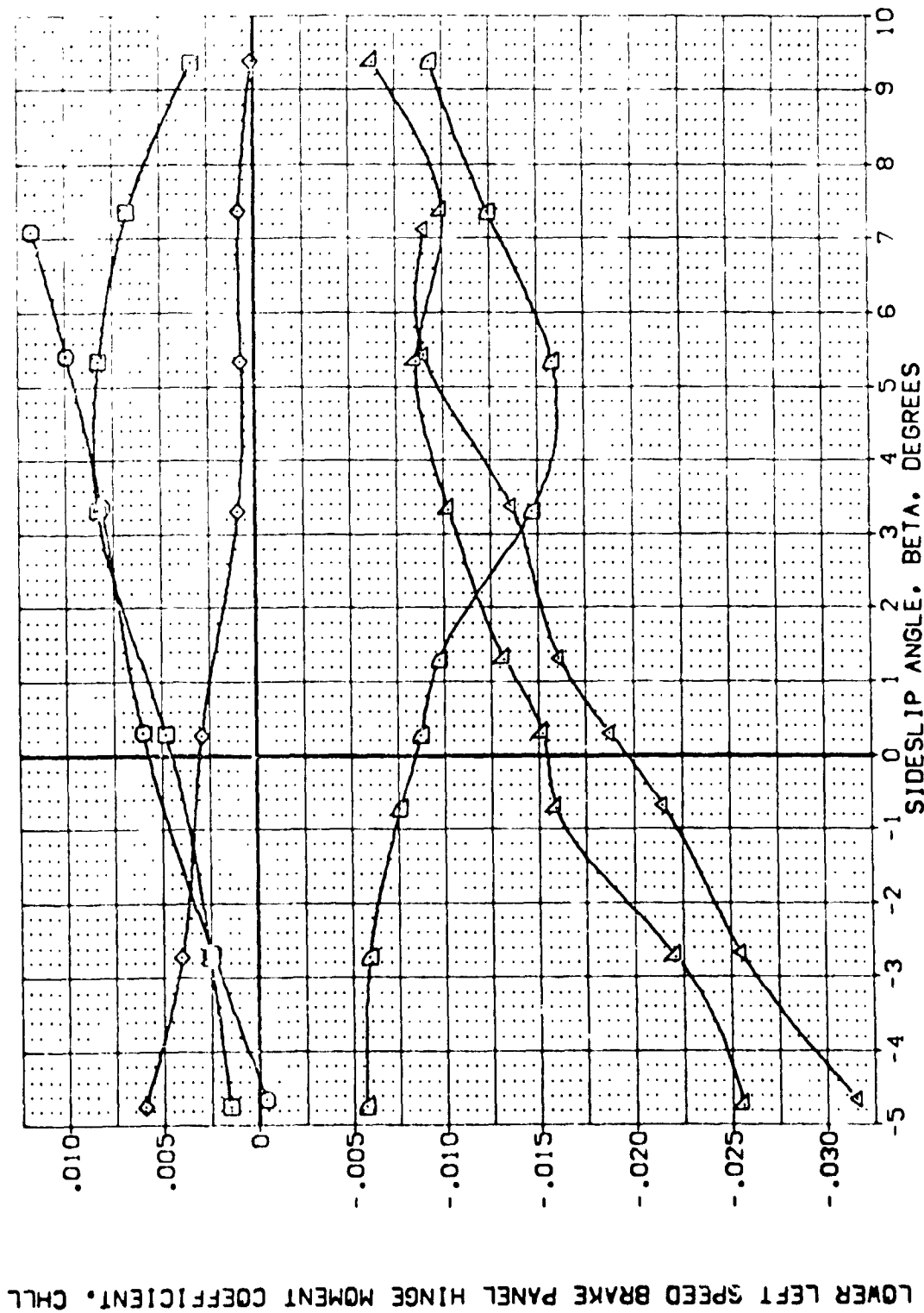


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER  
(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDF LAP	SPOBRK	REFERENCE INFORMATION
(YEL051)	ARC 07-747 BASIC B C C H F VI	0.000	-25.000	-11.700	25.000	SREF 2.4210 SQ. FT.
(YEL052)	ARC 07-747 BASIC B C C H F VI	10.000	-25.000	-11.700	25.000	LREF 14.2440 IN.
(YEL053)	ARC 07-747 BASIC B C C H F VI	20.000	-25.000	-11.700	25.000	BREF 28.1004 IN.
(YEL032)	ARC 07-747 BASIC B C C H F VI	0.000	-20.000	-11.700	46.000	YREF 32.3010 IN.
(YEL033)	ARC 07-747 BASIC B C C H F VI	10.000	-20.000	-11.700	46.000	YREF 32.3010 IN.
(YEL034)	ARC 07-747 BASIC B C C H F VI	20.000	-20.000	-11.700	46.000	YREF 32.3010 IN.
						ZREF 11.2500 IN.
						SCALE .0000

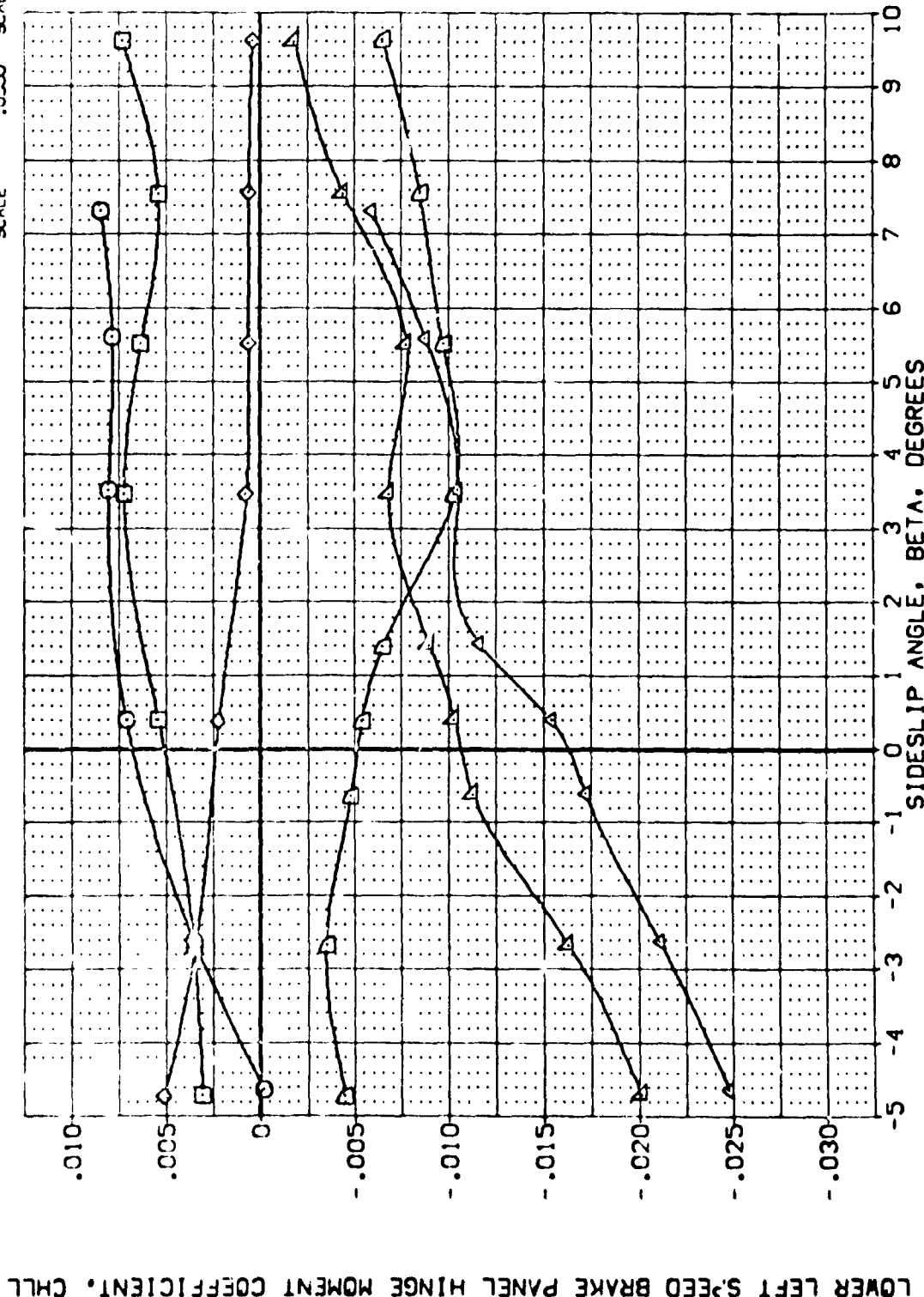


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDLAP	SPUBRK	REFERENCE INFORMATION
(YEL001)	ARC 87-747 0A53C B C H F VI	0.00	-25.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL002)	ARC 87-747 0A53C B C H F VI	10.000	-25.000	-11.700	25.000	LREF 14.2440 IN.
(YEL003)	ARC 87-747 0A53C B C H F VI	20.000	-25.000	-11.700	25.000	BREF 28.1004 IN.
(YEL002)	ARC 87-747 0A53C B C H F VI	10.000	-20.000	-11.700	45.000	XMRP 32.3010 IN.
(YEL003)	ARC 87-747 0A53C B C H F VI	10.000	-20.000	-11.700	45.000	YMRP 11.2500 IN.
(YEL004)	ARC 87-747 0A53C B C H F VI	20.000	-20.000	-11.700	45.000	SCALE .0300

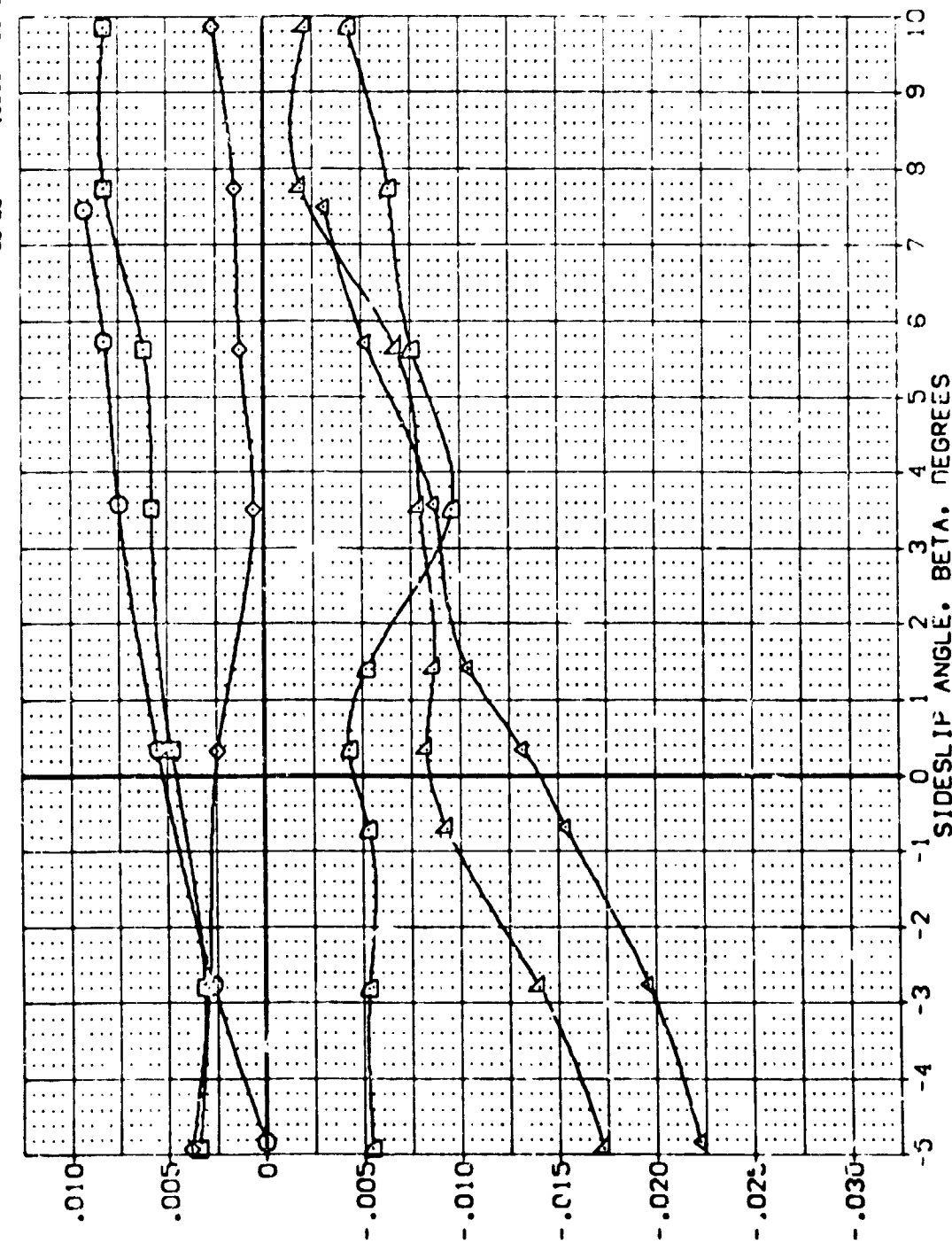


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER  
(C)MACH = 3.50

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

DATA SET SYMBO.	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPODBRK	REFERENCE INFORMATION
(YEL051)	ARC 67-747 DAS3C B C M F V I V	0.000	-25.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL052)	ARC 67-747 DAS3C B C M F V I V	10.000	-25.000	-11.700	25.000	LREF 14.2440 IN.
(YEL053)	ARC 67-747 DAS3C B C M F V I V	20.000	-25.000	-11.700	25.000	BREF 20.1004 IN.
(YEL054)	ARC 67-747 DAS3C B C M F V I V	10.000	-20.000	-11.700	46.000	YMRP 32.3010 IN.
(YEL055)	ARC 67-747 DAS3C B C M F V I V	20.000	-20.000	-11.700	46.000	ZMRP 11.2500 IN.
(YEL056)	ARC 67-747 DAS3C B C M F V I V	20.000	-20.000	-11.700	46.000	SCALE .0330

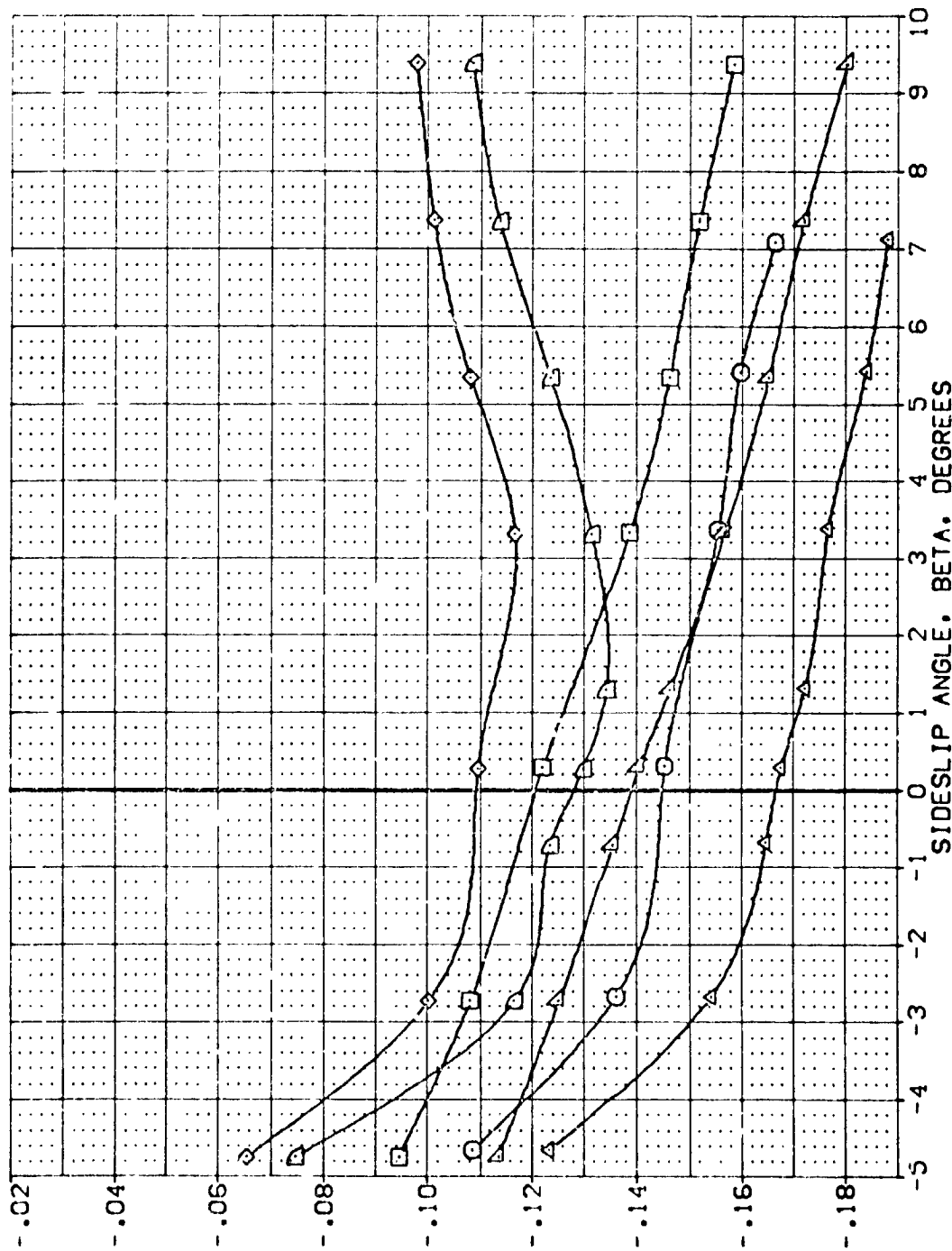


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(A)MACH = 2.50

DATA SET SYMB.	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEED	REFERENCE IN INCHES
(VELO51)	ARC 07-747 OAS3C B C M F V	0.000	-25.000	-1.700	25.000	2.40
(VELO52)	ARC 07-747 OAS3C B C M F V	10.000	-25.000	-1.700	25.000	14.00
(VELO53)	ARC 07-747 OAS3C B C M F V	20.000	-25.000	-1.700	25.000	20.00
(VELO54)	ARC 07-747 OAS3C B C M F V	10.000	-20.000	-1.700	45.000	30.00
(VELO55)	ARC 07-747 OAS3C B C M F V	20.000	-20.000	-1.700	45.000	30.00
(VELO56)	ARC 07-747 OAS3C B C M F V	10.000	-20.000	-1.700	75.000	11.00
(VELO57)	ARC 07-747 OAS3C B C M F V	20.000	-20.000	-1.700	75.000	11.00

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

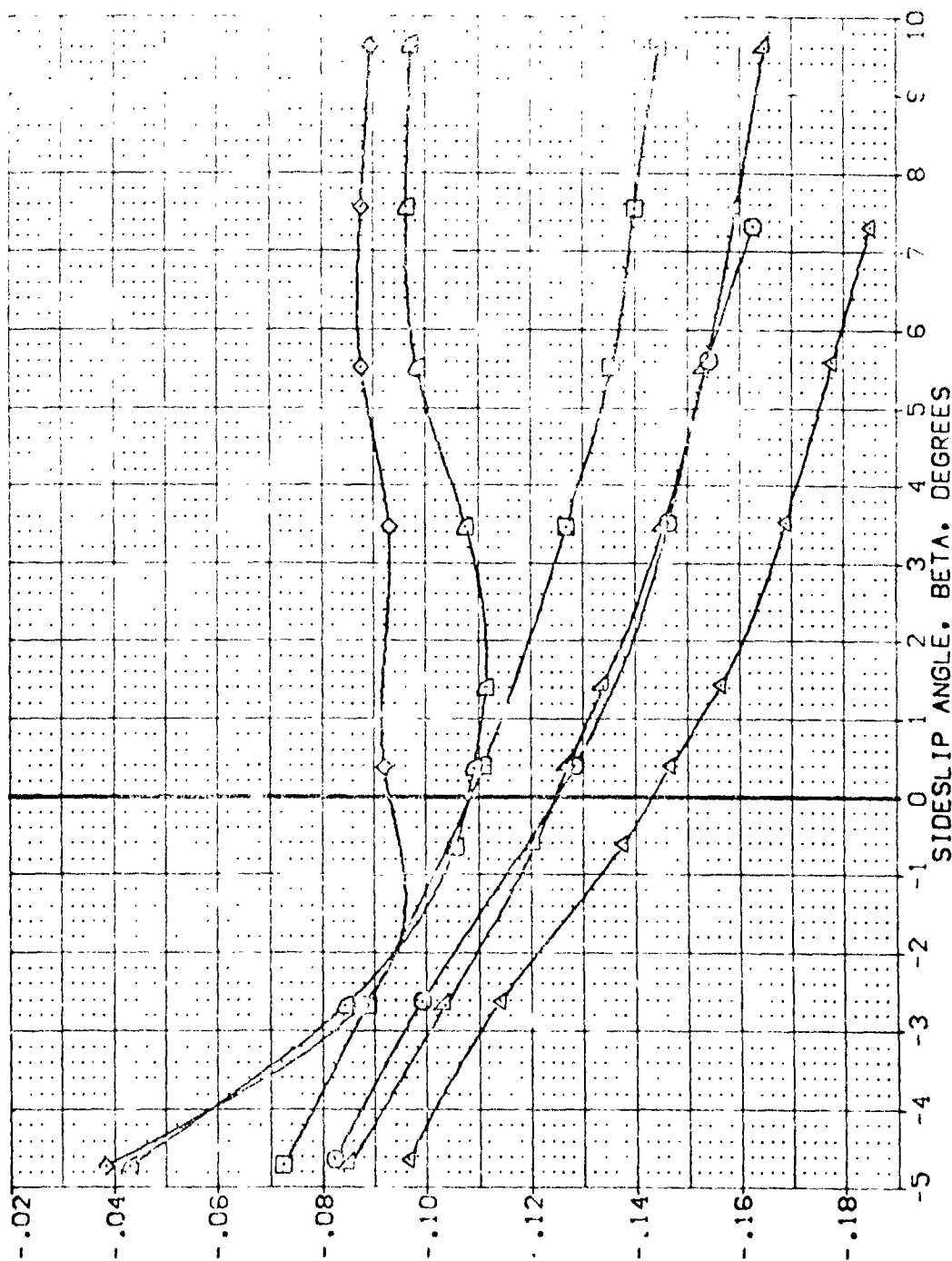


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(B)MACH = 3.00

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
[YEL051]	ARC 67-747	CASCC B C M F V	0.000	-25.000	-11.700	25.000	SREF 2.4210 SC.F.T.
[YEL052]	ARC 67-747	CASCC B C M F V	10.000	-25.000	-11.700	25.000	LREF 14.2440
[YEL053]	ARC 67-747	CASCC B C M F V	20.000	-25.000	-11.700	25.000	BREF 28.1004
[YEL054]	ARC 67-747	CASCC B C M F V	10.000	-20.000	-11.700	45.000	XREF 32.3010
[YEL055]	ARC 67-747	CASCC B C M F V	20.000	-20.000	-11.700	45.000	YREF 11.2000
[YEL056]	ARC 67-747	CASCC B C M F V	20.000	-20.000	-11.700	45.000	ZREF 0.0000 SCALE

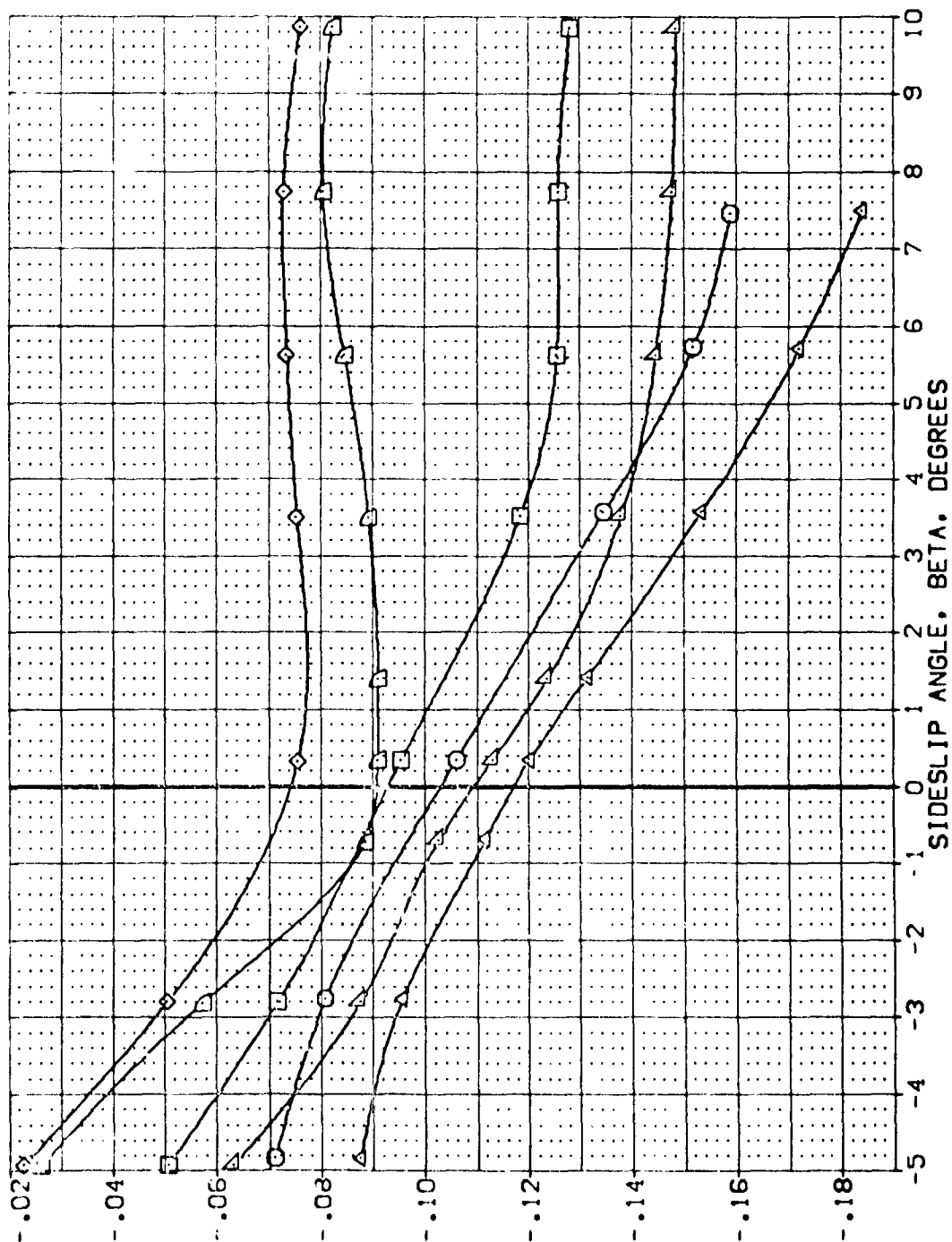


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
[YEL051]	ARC 87-747 DASSC B C M F VI	0.000	-25.000	-11.700	25.000	SREF 14.4210 SQ. FT.
[YEL052]	ARC 87-747 DASSC B C M F VI	10.000	-25.000	-11.700	25.000	LRREF 14.2440
[YEL053]	ARC 87-747 DASSC B C M F VI	20.000	-25.000	-11.700	25.000	BRREF 31.1701
[YEL054]	ARC 87-747 DASSC B C M F VI	10.000	-20.000	-11.700	45.000	XRREF 32.2410
[YEL055]	ARC 87-747 DASSC B C M F VI	10.000	-20.000	-11.700	45.000	YRREF 0.0000
[YEL056]	ARC 87-747 DASSC B C M F VI	20.000	-20.000	-11.700	45.000	ZRREF 11.0000
[YEL057]	ARC 87-747 DASSC B C M F VI	20.000	-20.000	-11.700	45.000	SCALE 1.0000

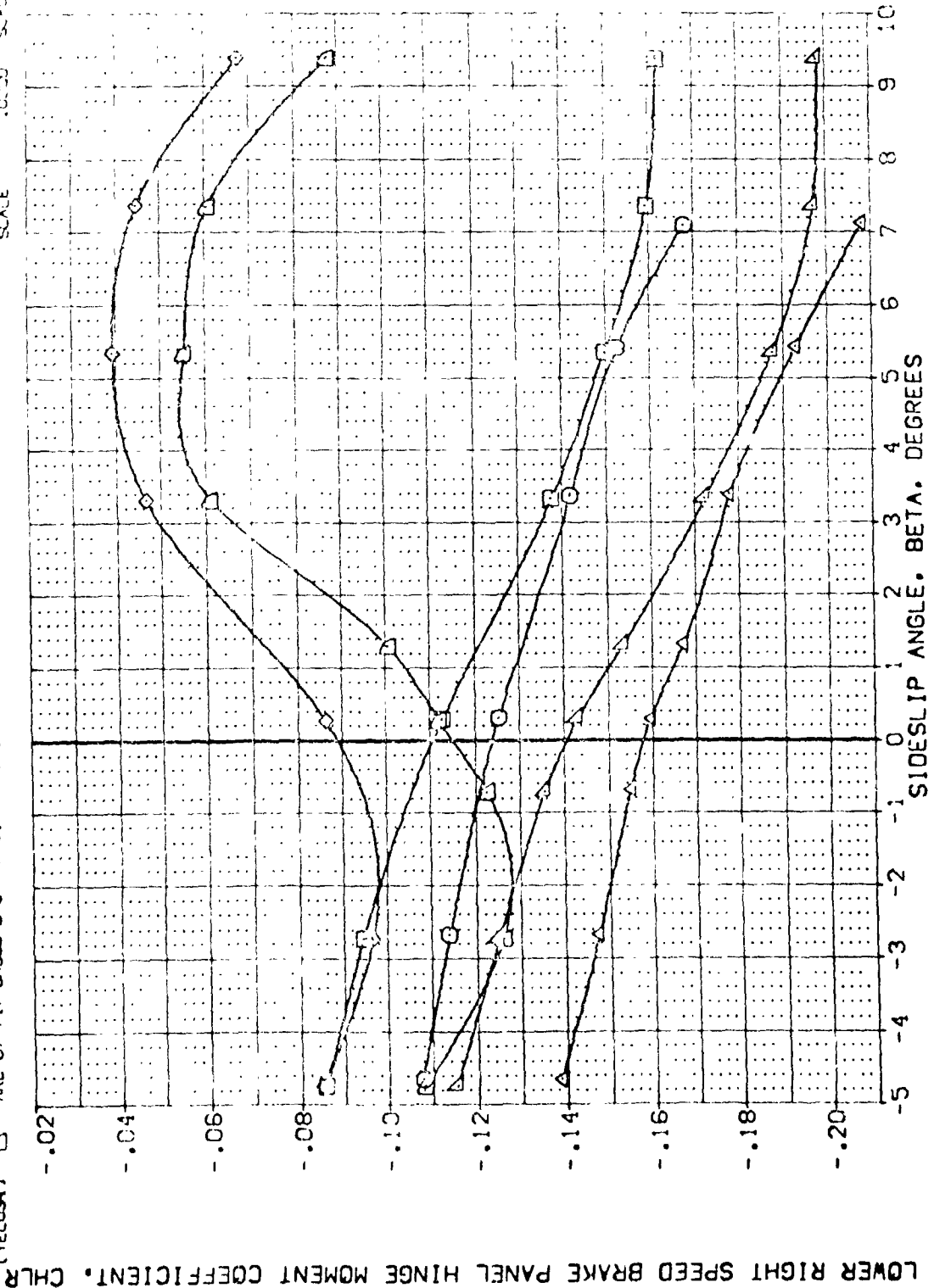


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(A)MACH = 2.50

DATA SET SYMBL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VEL051)	ARC 87-747 DASSC B C M F VI	0.000	-25.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(VEL052)	ARC 87-747 DASSC B C M F VI	10.000	-25.000	-11.700	25.000	UREF 14.2440 IN.
(VEL053)	ARC 87-747 DASSC B C M F VI	20.000	-25.000	-11.700	25.000	BRF 29.1004 IN.
(VEL032)	ARC 87-747 DASSC B C M F VI	10.000	-20.000	-11.700	46.000	XMRP 32.3010 IN.
(VEL033)	ARC 87-747 DASSC B C M F VI	20.000	-20.000	-11.700	46.000	YMRP 11.0000 IN.
(VEL034)	ARC 87-747 DASSC B C M F VI	20.000	-20.000	-11.700	46.000	ZMRP 11.2500 IN.
						SCALE 0.000

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

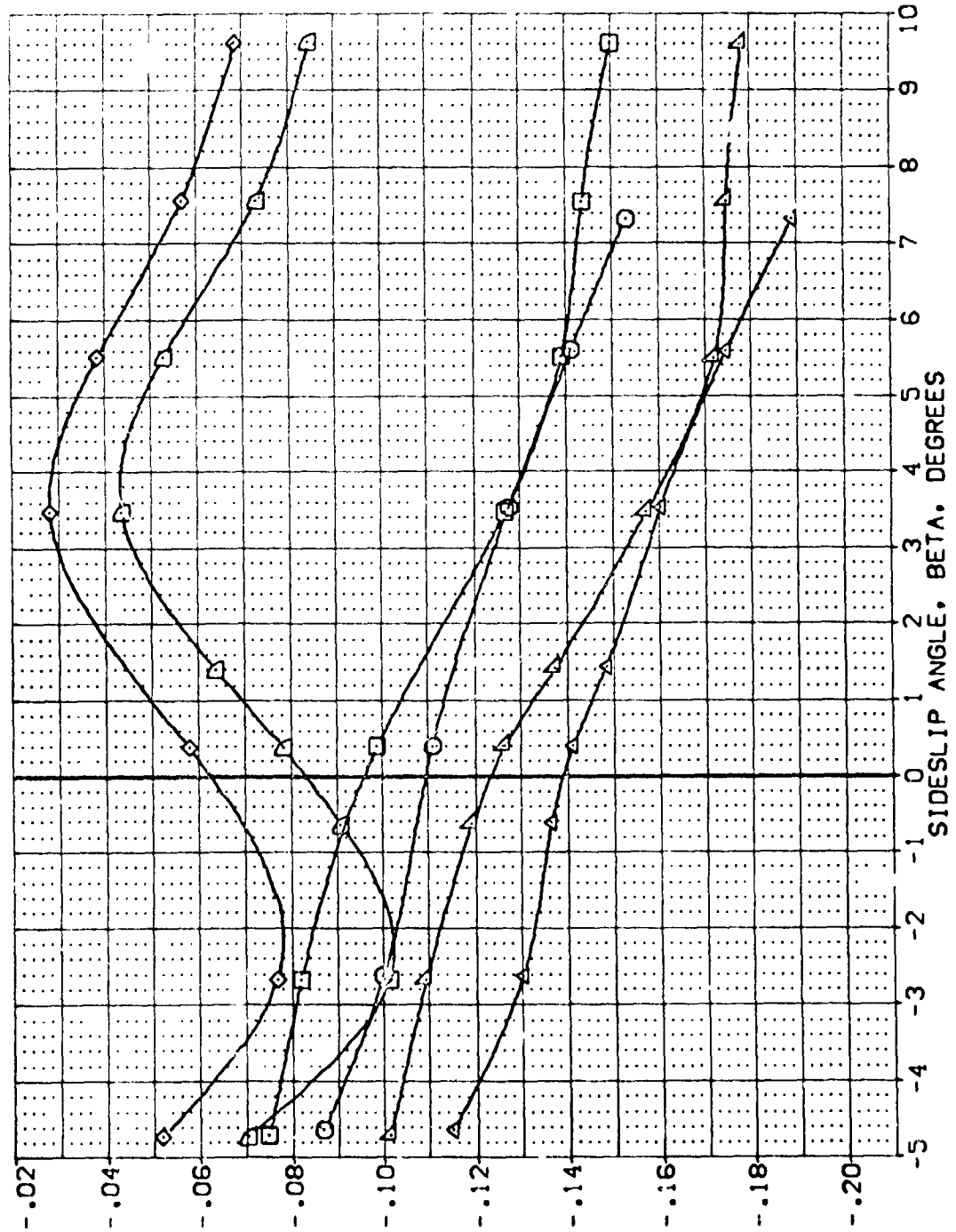


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(8)MACH = 3.00

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, C<sub>HLR</sub>

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPDRK	REFERENCE INFORMATION
(YEL051)	ARC 87-747 C/S3C B C H F VI	0.000	-25.000	-11.700	25.000	SREF 2.4210
(YEL052)	ARC 87-747 C/S3C B C H F VI	10.000	-25.000	-11.700	25.000	LREF 2.2440
(YEL053)	ARC 87-747 C/S3C B C H F VI	20.000	-25.000	-11.700	25.000	SREF 2.2440
(YEL052)	ARC 87-747 C/S3C B C H F VI	10.000	-20.000	-11.700	45.000	XREF 29.1000
(YEL053)	ARC 87-747 C/S3C B C H F VI	20.000	-20.000	-11.700	45.000	XREF 32.2000
(YEL054)	ARC 87-747 C/S3C B C H F VI	20.000	-20.000	-11.700	45.000	ZREF 11.0000
						SCALE

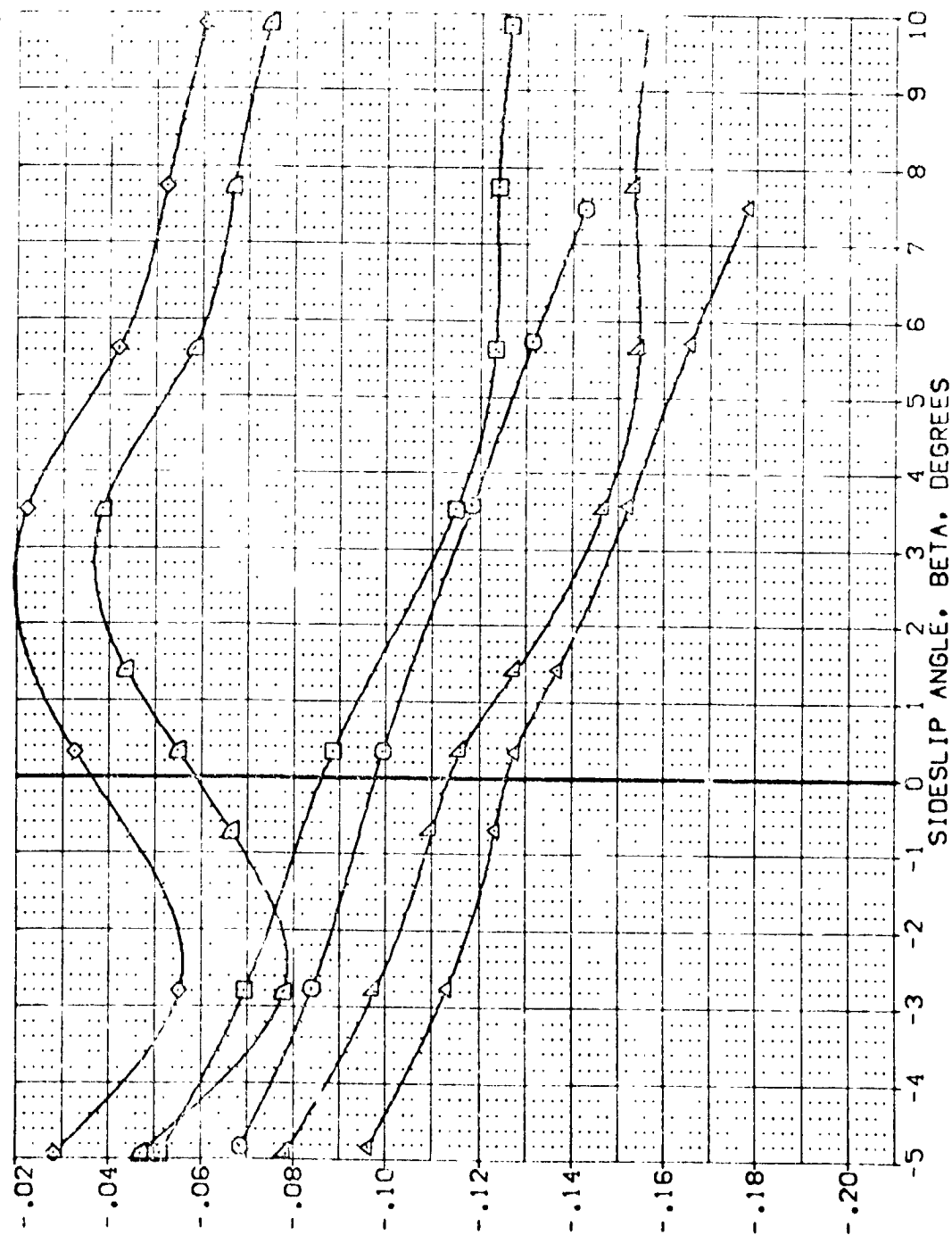


FIG. 34 RUDDER HINGE MOMENTS, -25. DEGREES RUDDER

(C)MACH = 3.50



DATA SET 1  
 VEL: 024  
 VEL: 011  
 VEL: 030

CONFIGURATION DESCRIPTION  
 ARC 87-747 0-53C B C M F V V  
 ARC 87-747 0-53C B C M F V V  
 ARC 87-747 0-53C B C M F V V

ELEVON AILRON BOFLAP SPEEDBRK  
 .000 .000 .000 25.000  
 .000 .000 .000 55.000  
 .000 .000 .000 85.000

REFERENCE INFORMATION  
 SREF 2.4210 SC.FT.  
 LREF 14.5340  
 BREF 26.1004  
 YREF 32.3010  
 ZREF 11.2000  
 SCALE .0300

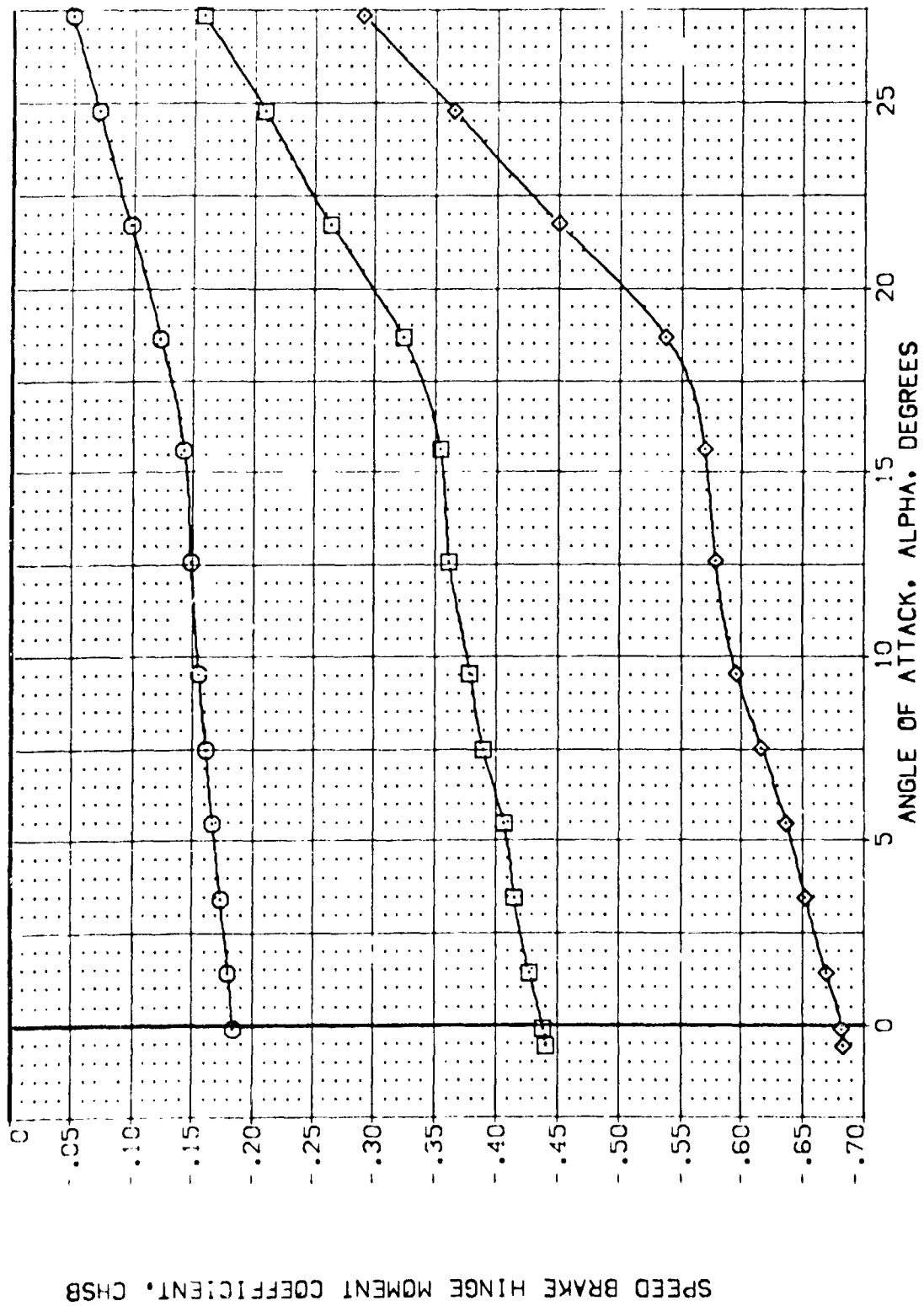


FIG. 35 SPEEDBRAKE HINGEMOMENTS

(A) V/C = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVATION AIRLIFT BOFLAP SPEED OF REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	AIRLIFT	BOFLAP	SPEED OF REFERENCE INFORMATION
(YEL024)	ARC 87-747 DASC B C M F VI V	.000	.000	11.700	2.4210
(YEL011)	ARC 87-747 DASC B C M F VI V	.000	.000	11.700	14.2440
(YEL038)	ARC 87-747 DASC B C M F VI V	.000	.000	11.700	28.1000
					32.3010
					.0000
					11.7500
					.0300
					SCALE

SPEED BRAKE HINGE MOMENT COEFFICIENT, CHSB

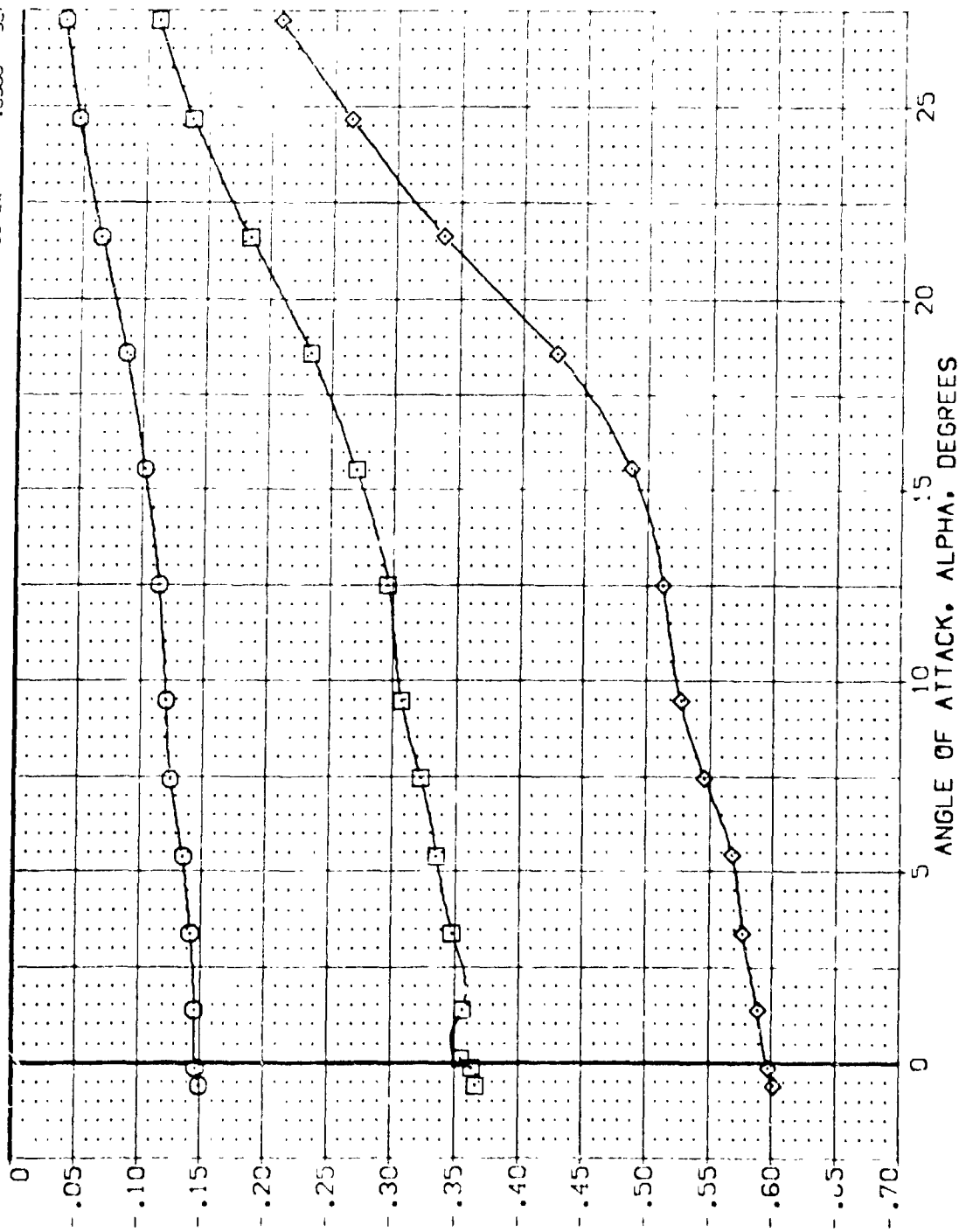


FIG. 35 SPEEDBRAKE HINGEMOMENTS

(3) VAS = 3.00

DATA SET SYMBOL    CONFIGURATION    ON DESCRIPTION    REFERENCE INFORMATION

(VE-024)	ARC 87-747	QAS5C B C M F V	V	NOM.	RV/L	ELEVON	AIRLON	BOE LAR	SPDBRK	SREF	2.4210	SC.FT.
(VE-011)	ARC 87-747	QAS5C B C M F V	V	NOM.	RV/L	.000	.000	-11.700	25.000	UREF	14.2440	IN.
(VE-038)	ARC 87-747	QAS5C B C M F V	V	NOM.	RV/L	.000	.000	-11.700	85.000	BRP	28.1004	IN.
										YMRP	32.3010	IN.
										ZMRP	.0000	IN.
										SCALE	11.2500	IN.
											.0300	SCALE

SPEED BRAKE HINGE MOMENT COEFFICIENT, CHS8

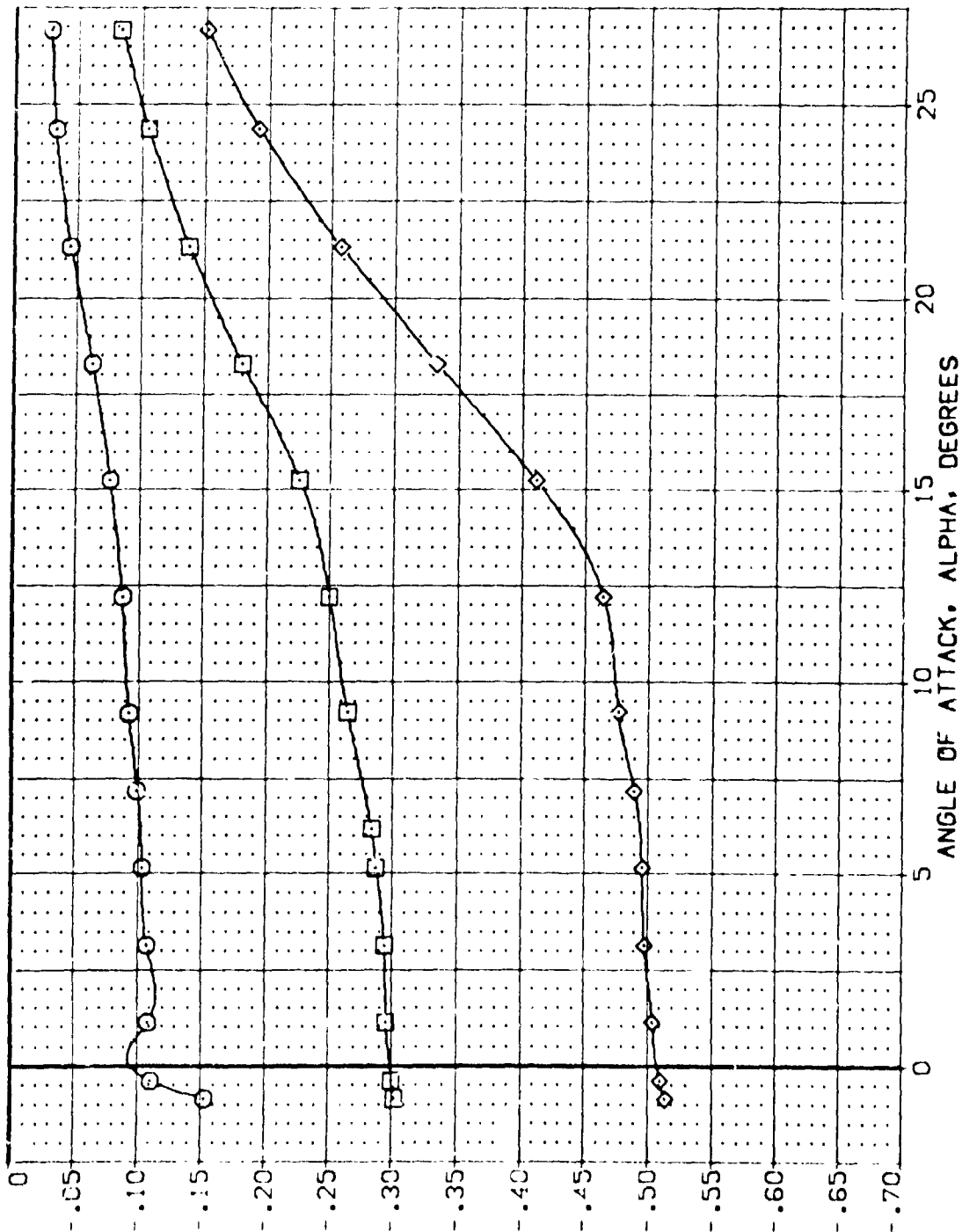


FIG. 35 SPEEDBRAKE HINGEMOMENTS

(C)MACH = 3.50



UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL


$$(B) \vee A C = 3.00$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BDF LAP	SPOON	REFERENCE INFORMATION
[YEL074]	ARC 87-747 QAS3C B C M F VI V	.000	.000	-11.700	75.000	SREF 2.421C SC. 21.
[YEL011]	ARC 87-747 QAS3C B C M F VI V	.000	.000	-11.700	55.000	REF 14.744C
[YEL038]	ARC 87-747 QAS3C B C M F VI V	.000	.000	-11.700	85.000	REF 28.000C
						YREF 37.301C
						YREF 0.000C
						YREF 11.700C
						SCALE .0300

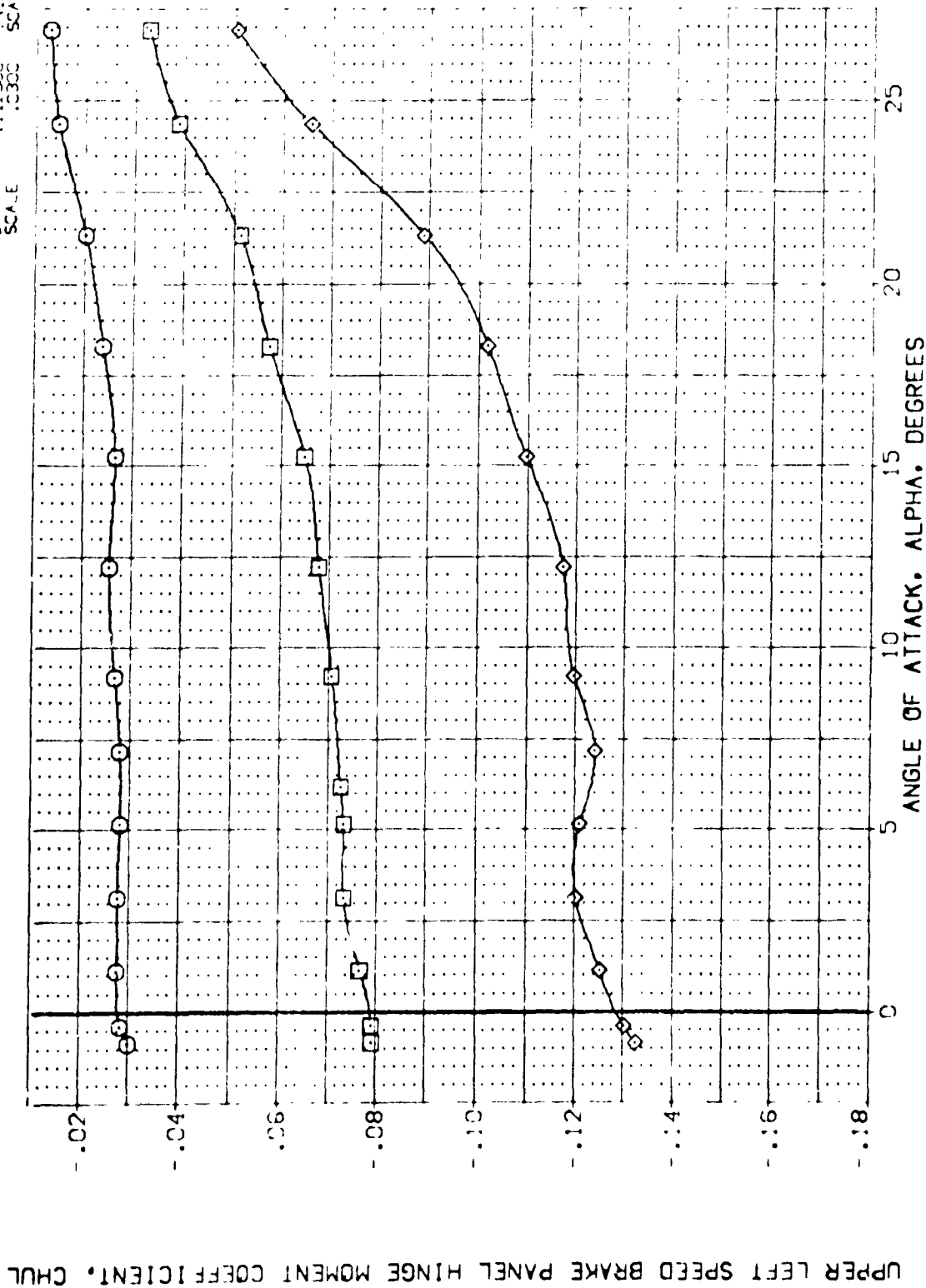


FIG. 35 SPEEDBRAKE HINGEMOMENTS

(C)MACH 3.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	SPEEDBRAK	REFERENCE INFORMATION
[YE-024]	ARC 87-747 BASIC B C M F V	.000	.000	-11.700	25.000	2.4210 SCALE
[YE-011]	ARC 87-747 BASIC B C M F V	.000	.000	-11.700	55.000	14.2447 SCALE
[YE-038]	ARC 87-747 BASIC B C M F V	.000	.000	-11.700	85.000	79.3007 SCALE
						32.3010 SCALE
						1.0000 SCALE
						7.0000 SCALE
						11.7000 SCALE
						1.0000 SCALE

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

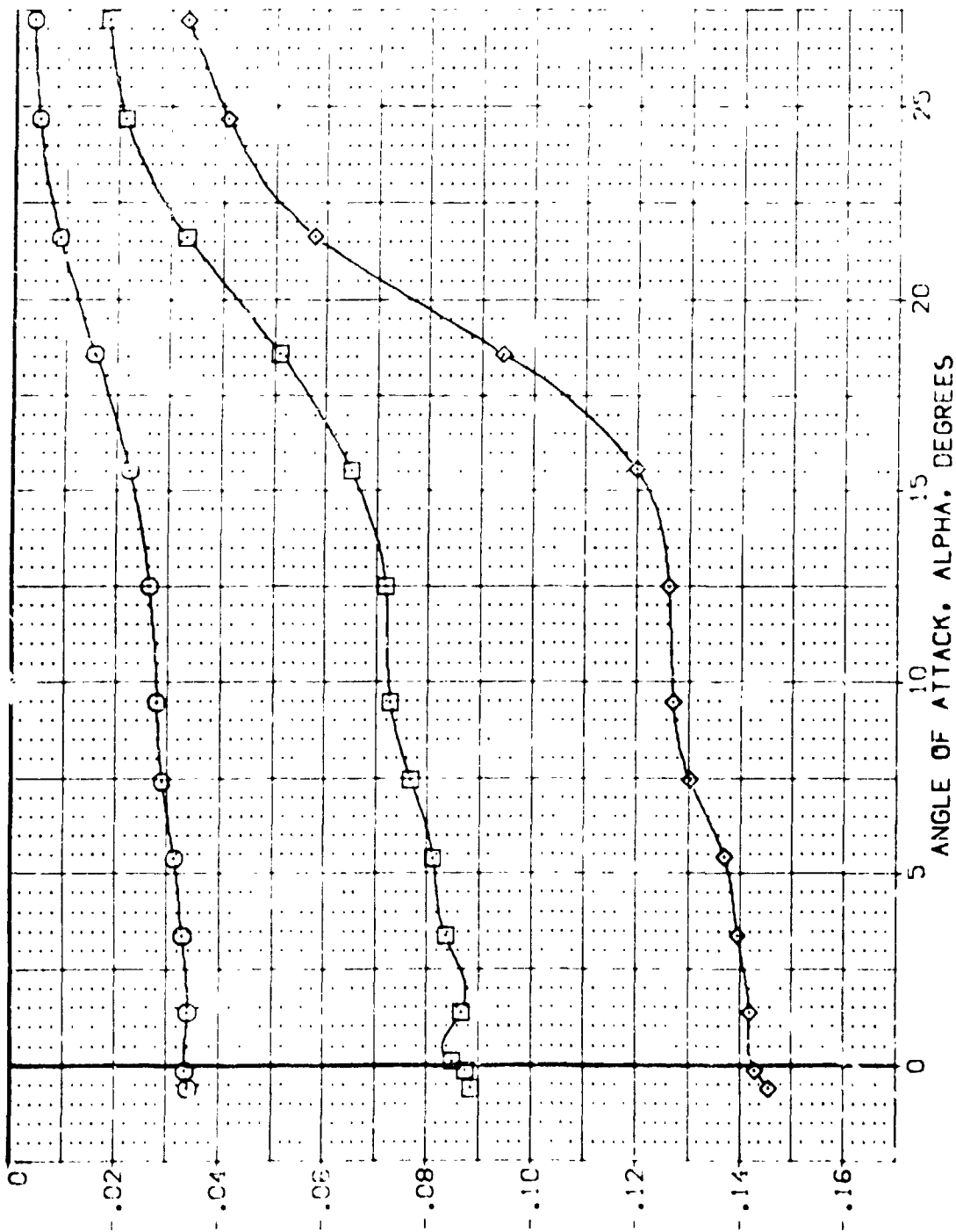
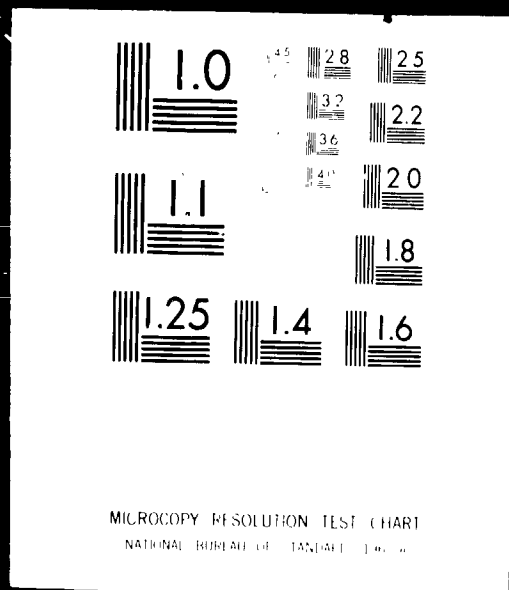


FIG. 35 SPEEDBRAKE HINGEMOMENTS

(B)MAC = 3.00



IV74 34334 UNCLAS



DATA SET SYMBOL: (YEL024) (YEL030) (YEL038)

CONFIGURATION DESCRIPTION: ARC 87-747 CAS3C B C M F VI V NOM. RN/L ARC 87-747 CAS3C B C M F VI V NOM. RN/L ARC 87-747 CAS3C B C M F VI V NOM. RN/L

ELEVON: .000 .000 .000

AILERON: .000 .000 .000

BOFLAP: -11.700 -11.700 -11.700

SPOBRK: 25.000 55.000 85.000

REFERENCE INFORMATION: SRFF 2 4210 SC.F.T. LREF 14.2442 BRFE 28.0004 XMRD 32.3010 YMRD .0000 ZMRD 11.2500 SCALE .0300

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

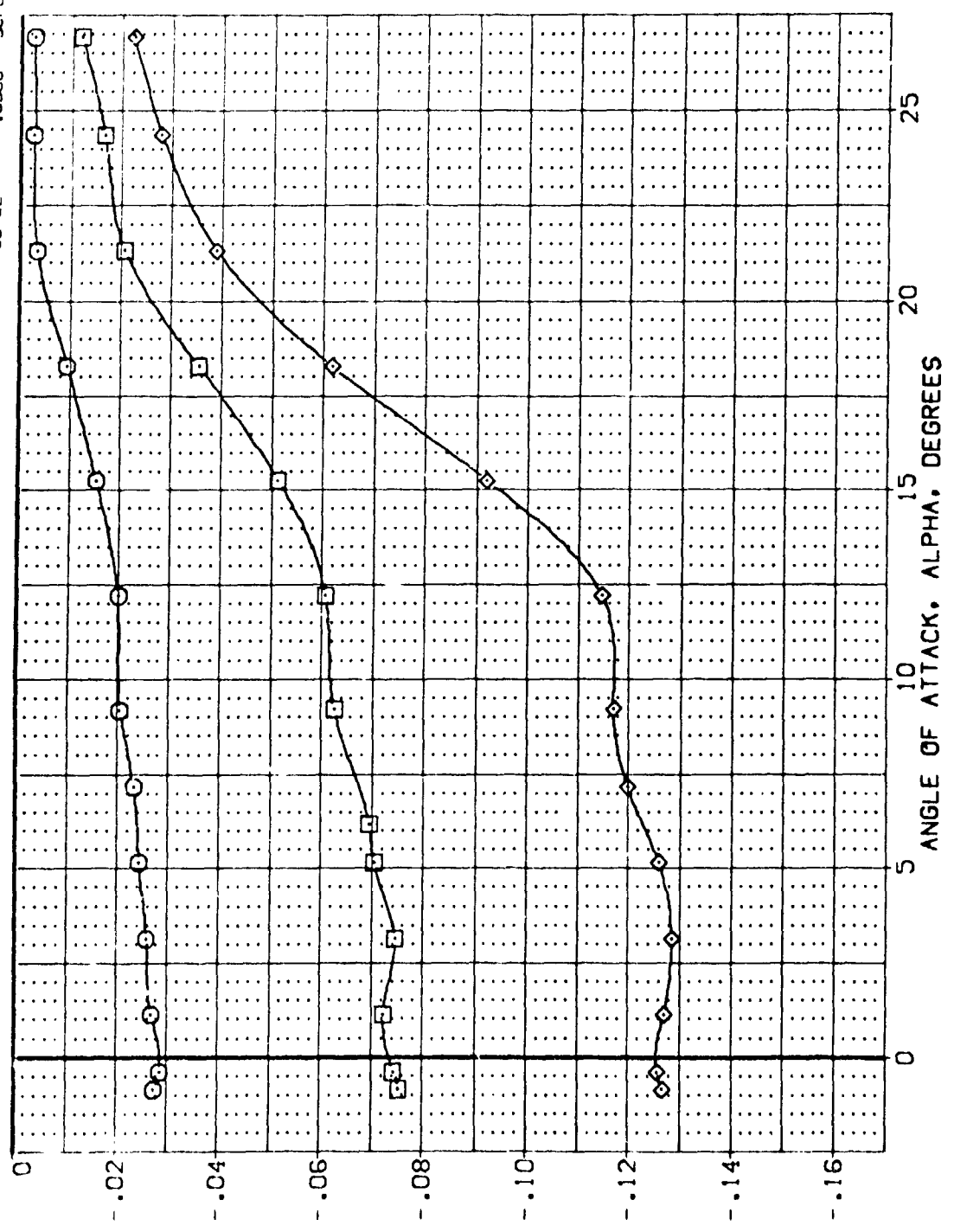


FIG. 35 SPEEDBRAKE HINGEMOMENTS

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

Symbol	Configuration	Description	Y	NOM	RV/L	ELEVON	AIRLON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(YEL024)	ARC 87-747	QAS3C B C M F V	V	NOM	RV/L	.000	.000	-11.700	75.000	SREF 2.4210 SQ.FT.
(YEL011)	ARC 87-747	QAS3C B C M F V	V	NOM	RV/L	.000	.000	-11.700	55.000	LREF 14.2440 IN.
(YEL036)	ARC 87-747	QAS3C B C M F V	V	NOM	RV/L	.000	.000	-11.700	85.000	BREF 38.1004 IN.
										YMRP 32.3010 IN.
										ZMRP 11.2500 IN.
										SCALE .0300

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

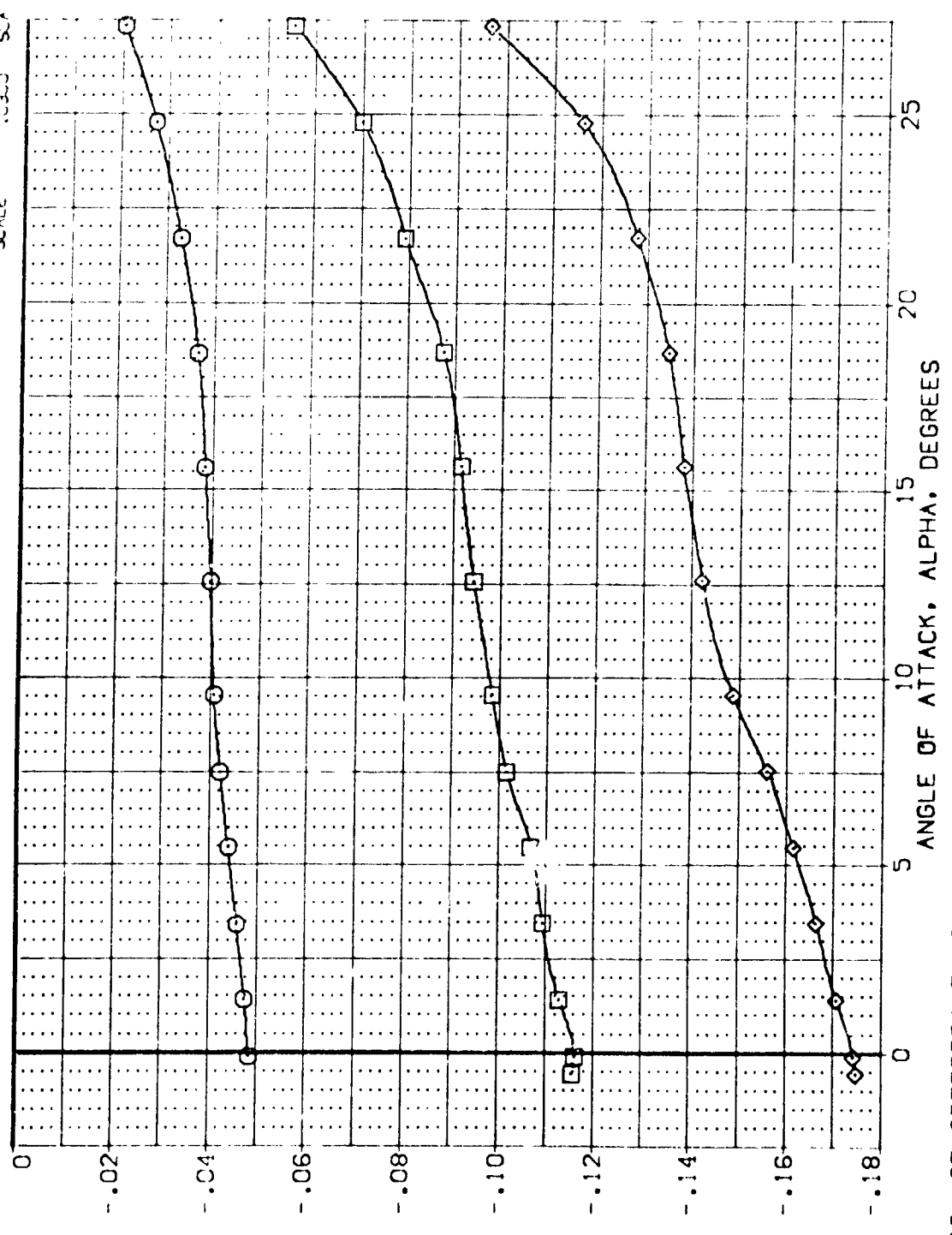


FIG. 35 SPEEDBRAKE HINGEMOMENTS

(A)MAC = 2.50

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

DATA SET SYMBOL	CONF	IGURATION	DESCRIPTION	ELEVON	AILERON	BOF LAP	SPD BRK	REFERENCE INFORMATION
[VE-024]	ARC	87-747	0453C B C M F V I V	.000	.000	-11.700	25.000	2.4210 SC.FT.
[VE-031]	ARC	87-747	0453C B C M F V I V	.000	.000	-11.700	55.000	14.2440
[VE-038]	ARC	87-747	0453C B C M F V I V	.000	.000	-11.700	85.000	28.1004
								32.3010
								11.2500
								.0300 SCALE

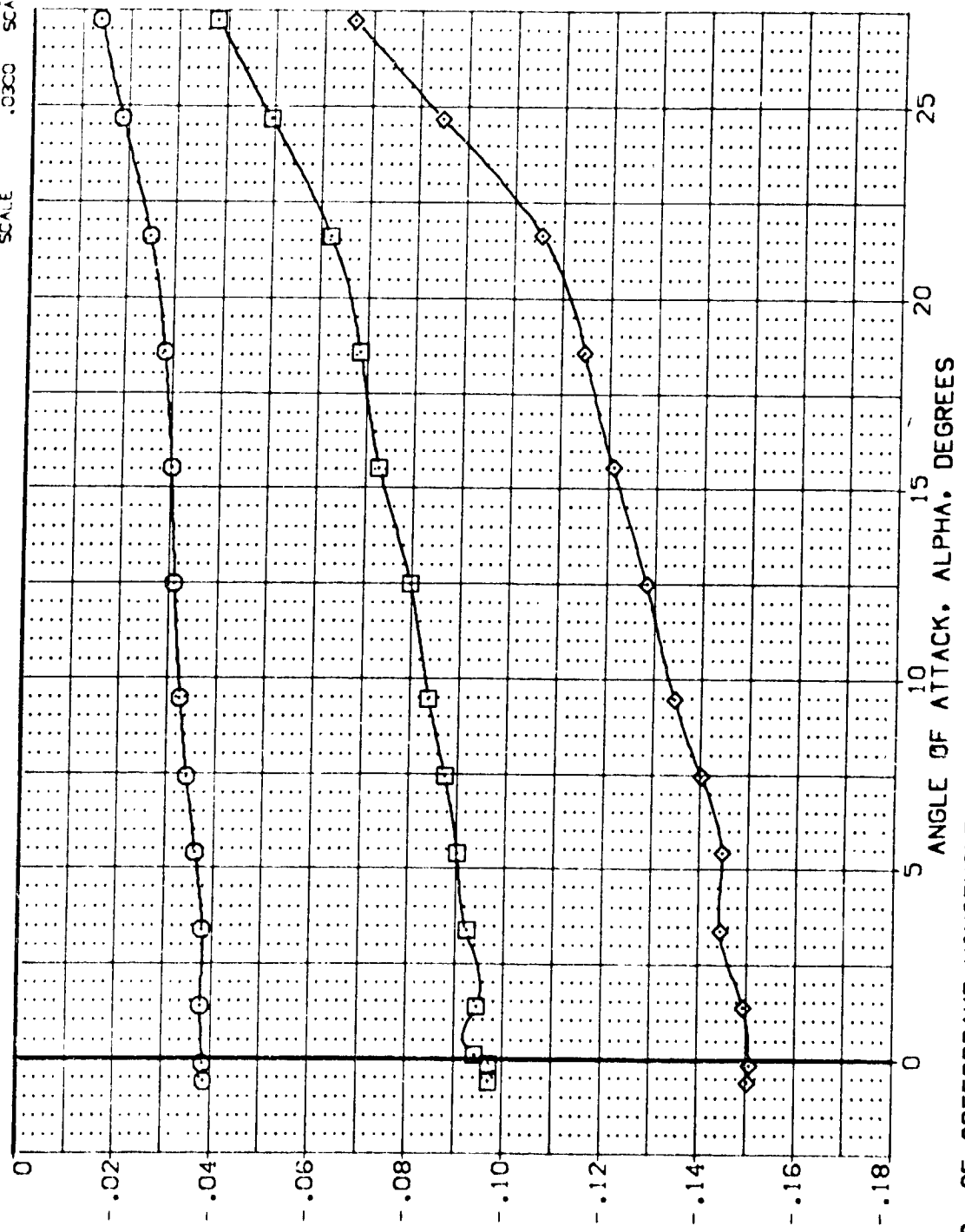


FIG. 35 SPEEDBRAKE HINGEMOMENTS

(B)MACH = 3.00

DATA SET SYMBOL

[YEL074]

[YEL011]

[YEL038]

CONFIGURATION DESCRIPTION

ARC 87-747 CAS3C B C M F V

ARC 87-747 CAS3C B C M F V

ARC 87-747 CAS3C B C M F V

NOM: RN/L

NOM: RN/L

NOM: RN/L

ELEVON

AILERON

BOFLAP

SPOBRK

REFERENCE INFORMATION

SREF 2.4210

LREF 14.7440

BREF 28.1004

XMRP 32.3010

YMRP .0000

ZMRP 11.7500

SCALE .0300

SCALE

SCALE

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

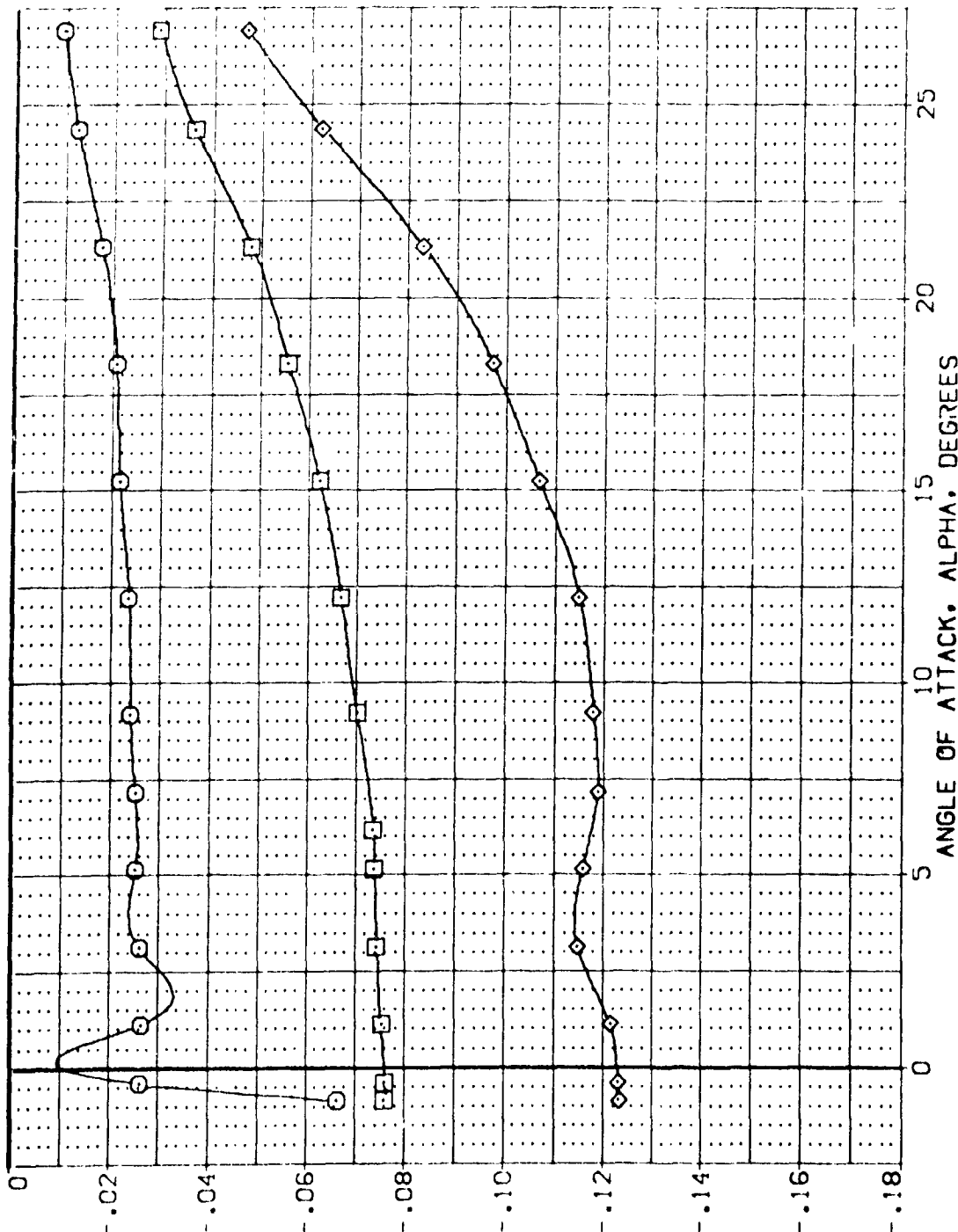


FIG. 35 SPEEDBRAKE HINGEMOMENTS

(C)MACH = 3.50

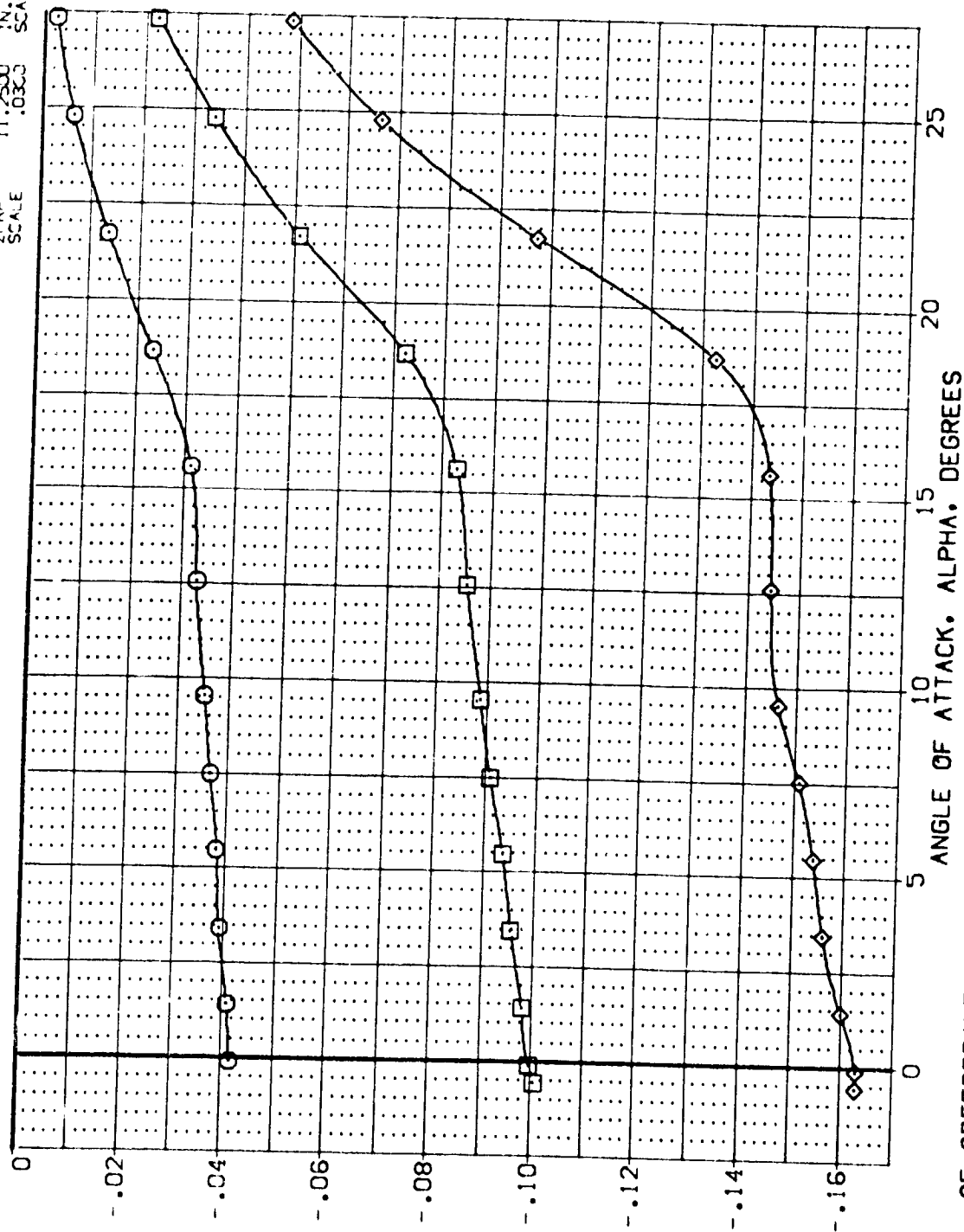
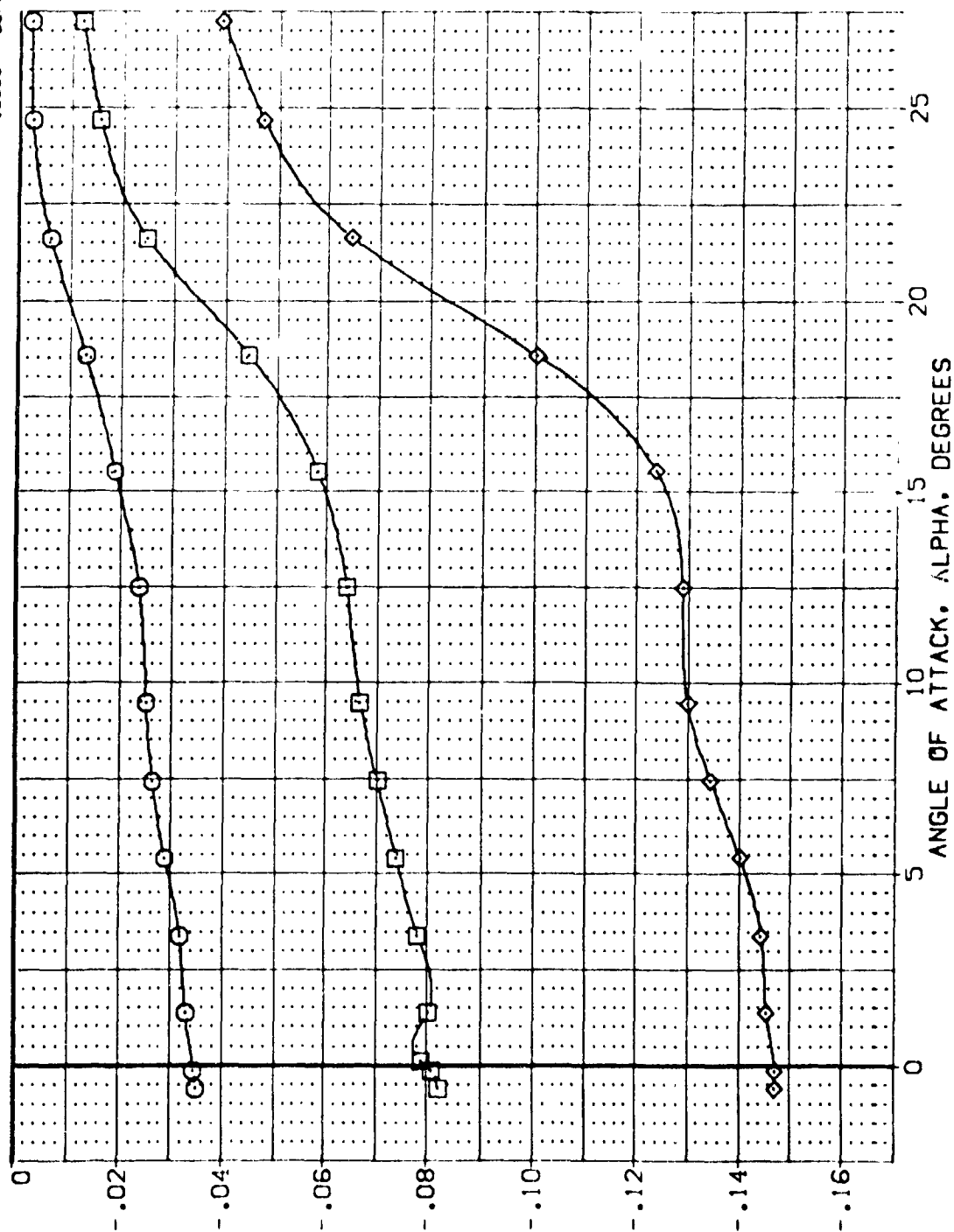
[illegible]

FIG. 35 SPEEDBRAKE HINGEMENTS

$$[A]_{MAC} = 2.50$$

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR



**FIG. 35 SPEEDBRAKE HINGEMENTS**

$$[B]^{MACH} = 3.00$$

DATA SET SYMBOL: [YEL024] [YEL011] [YEL038]

CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C M F VI V NOM. RN/L  
 ARC 87-747 BASIC B C M F VI V NOM. RN/L  
 ARC 87-747 BASIC B C M F VI V NOM. RN/L

ELEVON: .000 .000 .000

AILERON: .000 .000 .000

BOFLAP: -11.700 -11.700 -11.700

SPOILER: 75.000 55.000 65.000

REFERENCE INFORMATION: SREF 2.4210 SQ.FT.  
 LREF 14.2440  
 BREF 28.1004  
 XMRP 32.3010  
 YMRP 0.0000  
 ZMRP 0.0000  
 SCALE 11.2000 SCALE

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

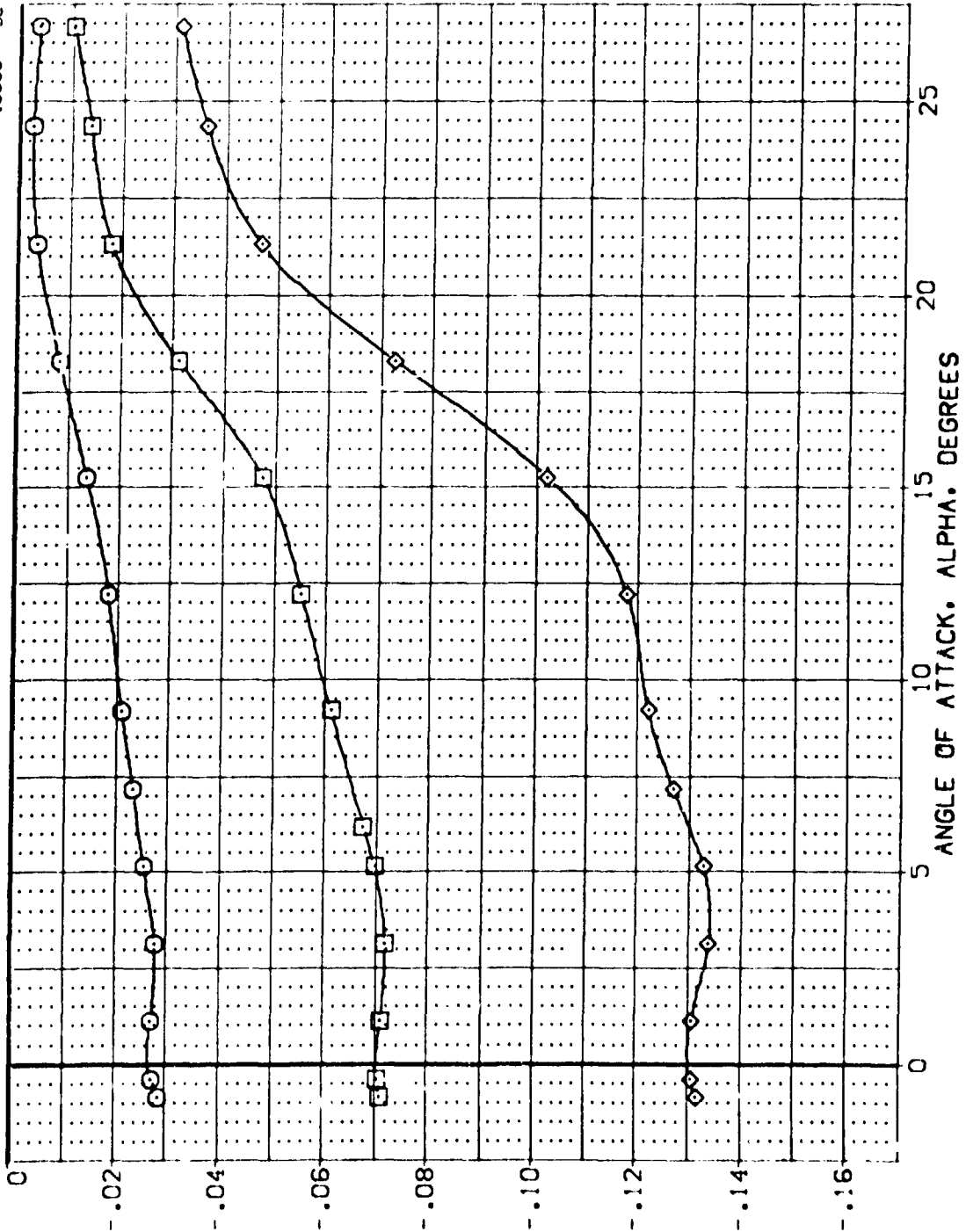


FIG. 35 SPEEDBRAKE HINGEMOMENTS

(C)MACH = 3.50



DATA SET SYMBOL: ☐ (VELO11) ☐ (VELO08)

CONFIGURATION DESCRIPTION: ARC 87-747 OAS3C B C H F V1 V, ARC 87-747 OAS3C B C H F V1 V

ELEVON: .000, .000, .000

AILERON: .000, .000, .000

BOFLAP: -11.700, -11.700

DSB: 30.000, 63.000

REFERENCE INFORMATION:

SREF	2.4210	SC.FT.
LREF	14.2440	IN.
BREF	28.1004	IN.
XMRP	32.9010	IN.
YMRP	.0000	IN.
ZMRP	11.2500	IN.
SCALE	.0300	SCALE

SPEED BRAKE HINGE MOMENT DERIV. WRT SPEED BRAKE DEFL., DCHDSB, PER DEG

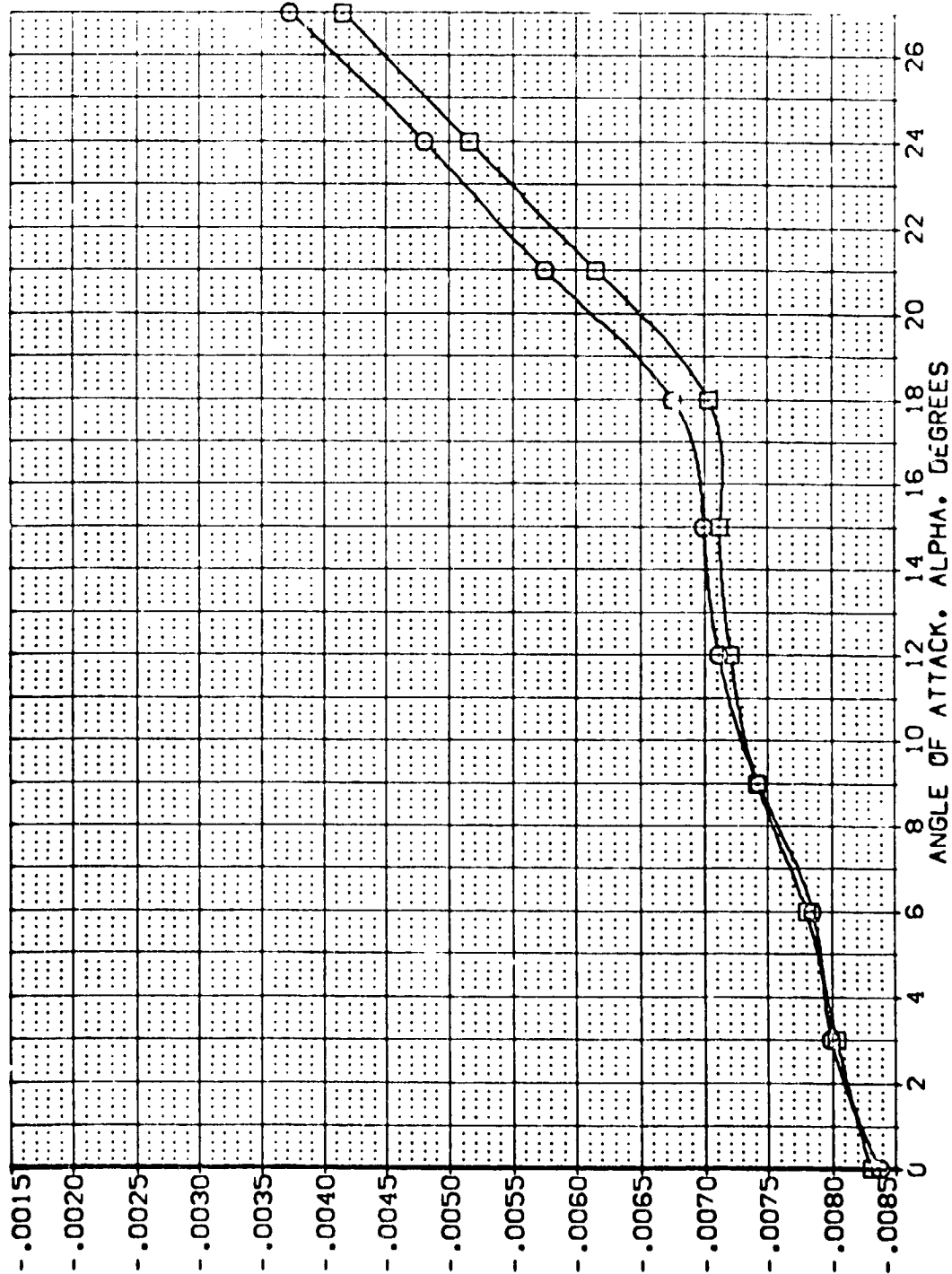


FIG. 35 SPEEDBRAKE HINGEMENTS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILERON	BOFLAP	DSB	REFERENCE INFORMATION	
(VEL011)	ARC 87-747 BAS3C B C H F V1	.000	.000	-11.700	30.000	SREF	2.4210 SD.FT.
(VEL038)	ARC 87-747 BAS3C B C H F V1	.000	.000	-11.700	60.000	LREF	14.2440 IN.
						BREF	28.1004 IN.
						XMRP	32.3010 IN.
						YMRP	.0000 IN.
						ZMRP	11.2500 IN.
						SCALE	.0330 SCALE

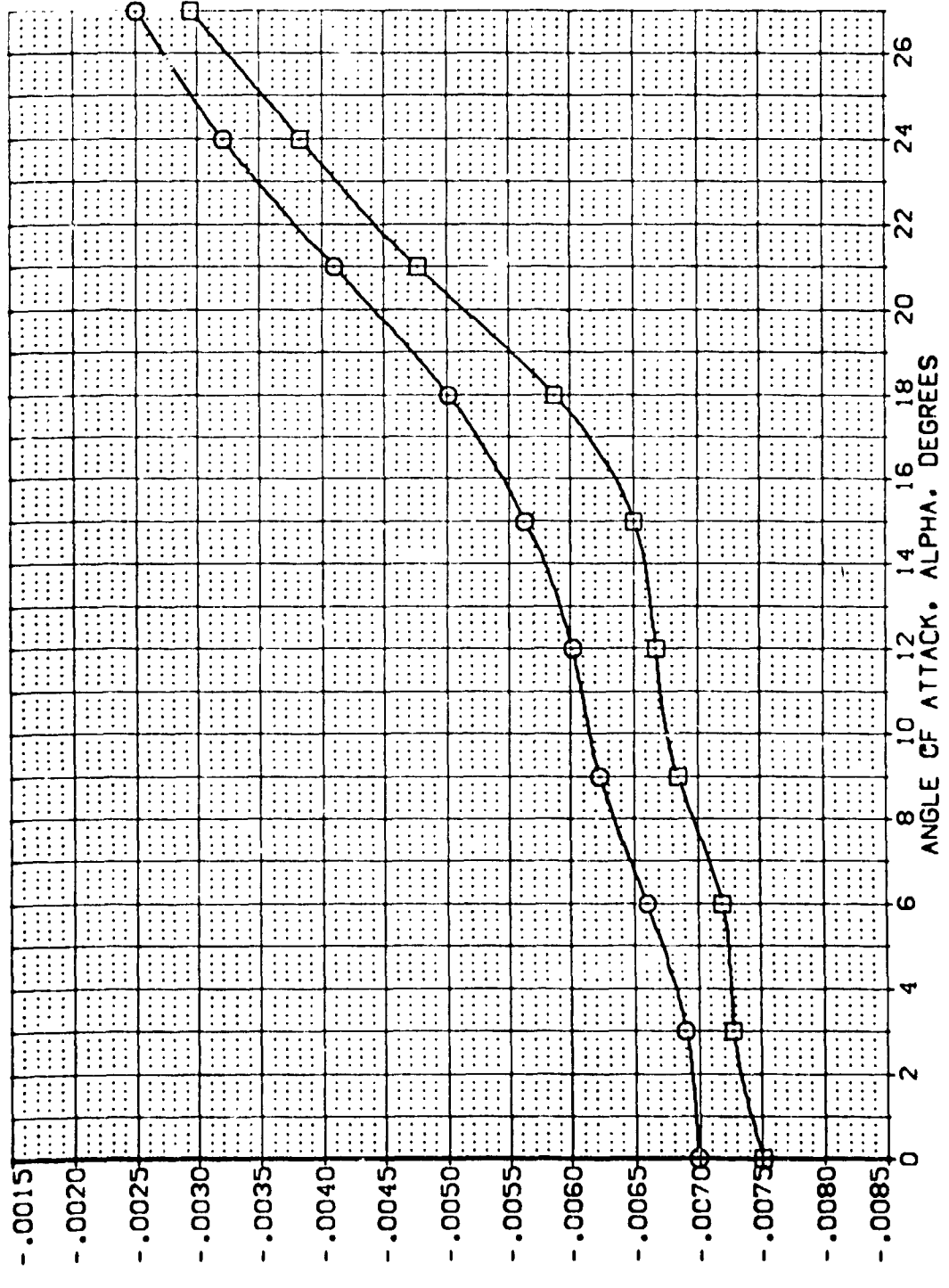


FIG. 35 SPEEDBRAKE HINGEMOMENTS  
(8)MACH = 3.00

DATA SET SYMBOL: ☐ (VELOCITY) ☐ (VELOCITY)

CONFIGURATION DESCRIPTION: ARC 87-747 OAS3C B C H F V1 V NON. RVNL V NON. RVNL

ELEVON: .000 .000

AILERON: .000 .000

BD FLAP: -11.700 -11.700

DSB: 30.000 60.000

REFERENCE INFORMATION:

SREF	2.4210	50.000
LREF	14.2440	IN.
BSREF	28.1004	IN.
XMRP	32.0010	IN.
YMRP	11.0000	IN.
ZMRP	11.2500	IN.
SCALE	.0000	SCALE

SPEED BRAKE HINGE MOMENT DERIV., WRT SPEED BRAKE DEF., DCHDSB, PER DEG

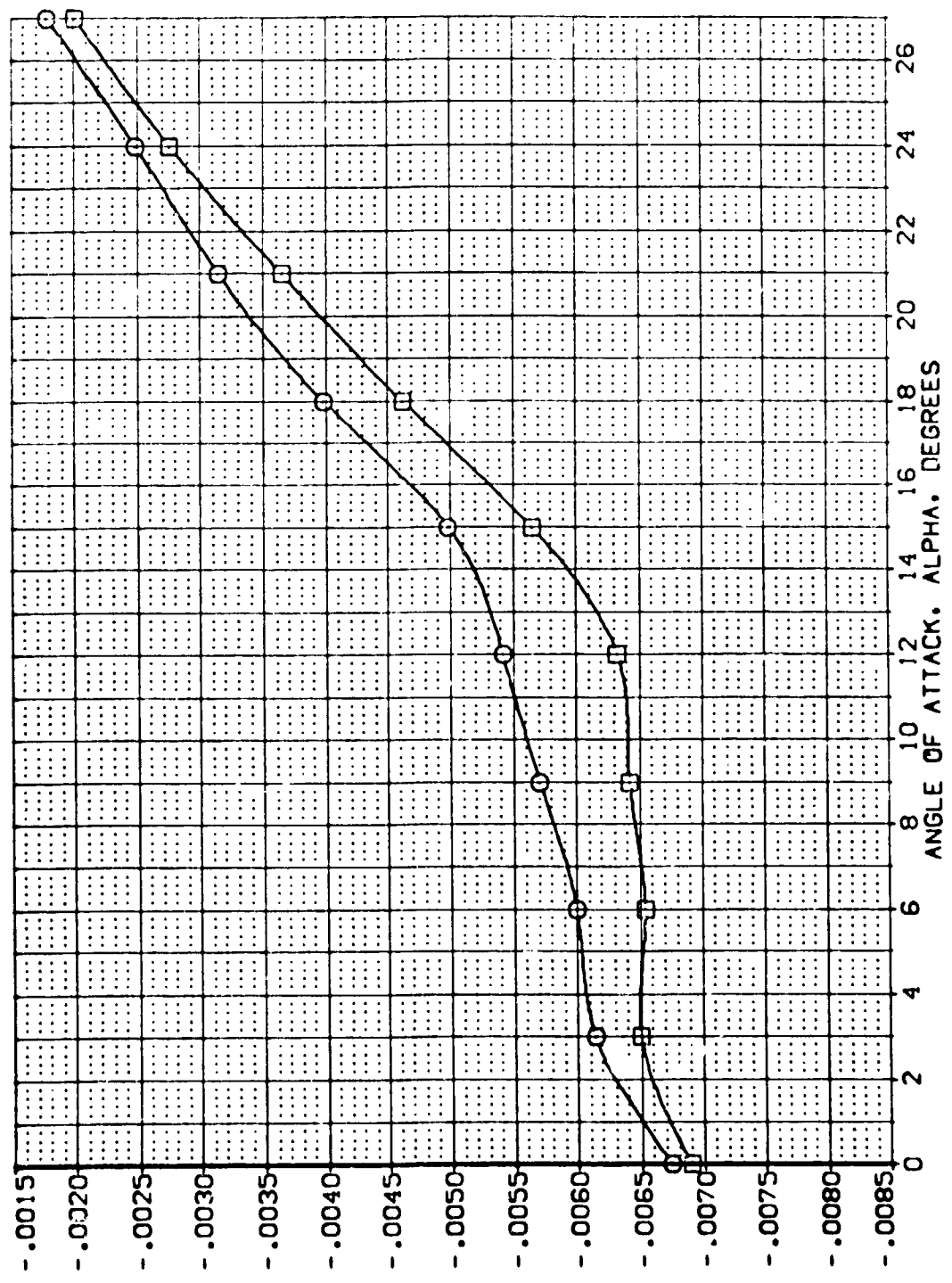


FIG. 35 SPEEDBRAKE HINGEMENTS

(C)MACH = 3.50

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (DELO02)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000	2.500	BETA	AILRON	SREF
		-10.000	BOFLAP	DELO05	LREF
		55.000	RUDDER	DELO44	BREF
		-10.000	ELEV-R		AMRP
					YMRP
					ZMRP
					SCALE
					SCALE

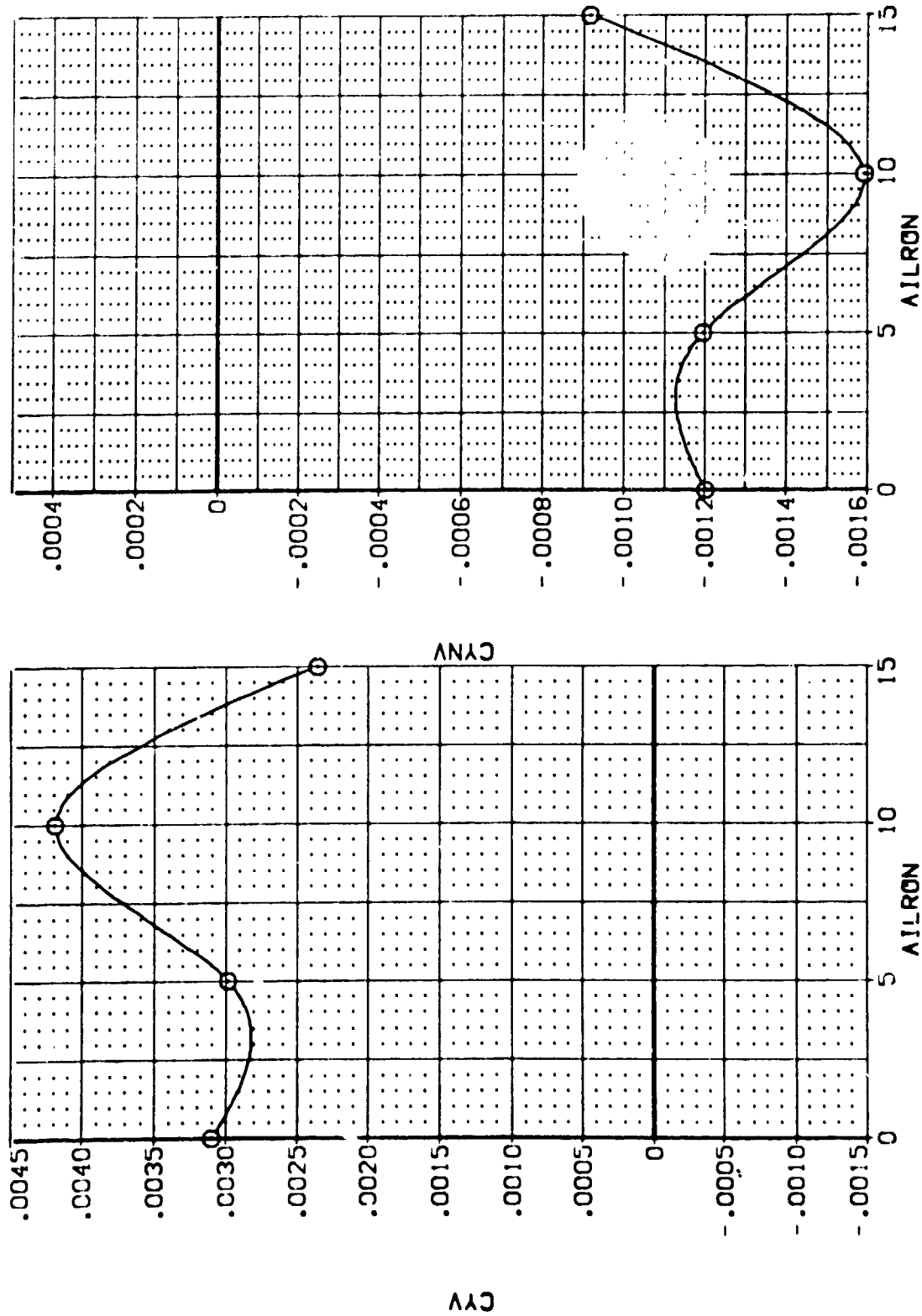


FIG. 36 EFFECT OF AILERON DEFLECTION ON VERTICAL TAIL

ARC 87-747 0A53C B C M F W1 V NDM. RN/L (DELO02)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
○	10.000		2.500	BETA	.000	AILRON	DELO05	AILRON	SREF	2.4210	SO. FT.
		ELEVON	-10.000	BD FLAP	-11.700	.000	DELO02	DELO05	LREF	14.2440	N.
		SPDBRK	55.000	RUDER	.000	10.000	DELO21	DELO44	BREF	26.1004	N.
		ELEV-L	-10.000	ELEV-R	-10.000				XREF	32.3010	N.
									YREF	.0000	N.
									ZREF	11.2500	N.
									SCALE	.3300	SCALE

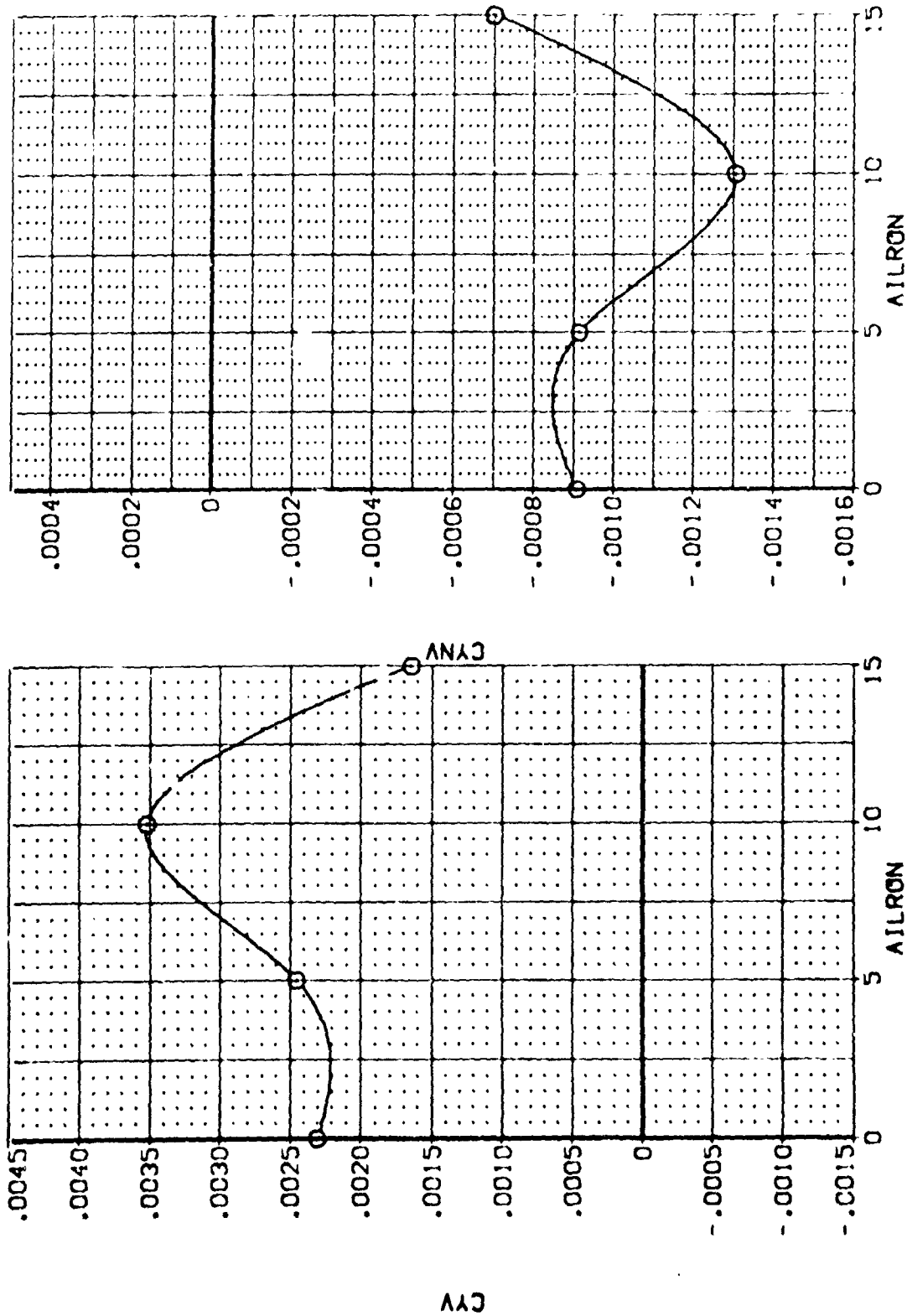


FIG. 36 EFFECT OF AILERON DEFLECTION ON VERTICAL TAIL

ARC 87-747 0A53C 3 C M F W1 V NOM. RN/L (DELO02)

SYMBOL  
○

ALPHA  
20.000

MACH  
ELEVON  
SPOBRK  
ELEV-L

PARAMETRIC VALUES  
2.500 BETA  
-10.000 BOFLAP  
55.000 RUDDER  
-10.000 ELEV-R

DATA SOURCE  
AILRON  
10.000

DATA SET  
DELO05  
DELO44

AILRON  
5.000  
15.000

REFERENCE INFORMATION  
SREF  
LREF  
BREF  
XMRP  
YMRP  
ZMRP  
SCALE  
2.4210  
14.2440  
26.11004  
32.3010  
0.0000  
11.7500  
0.0000

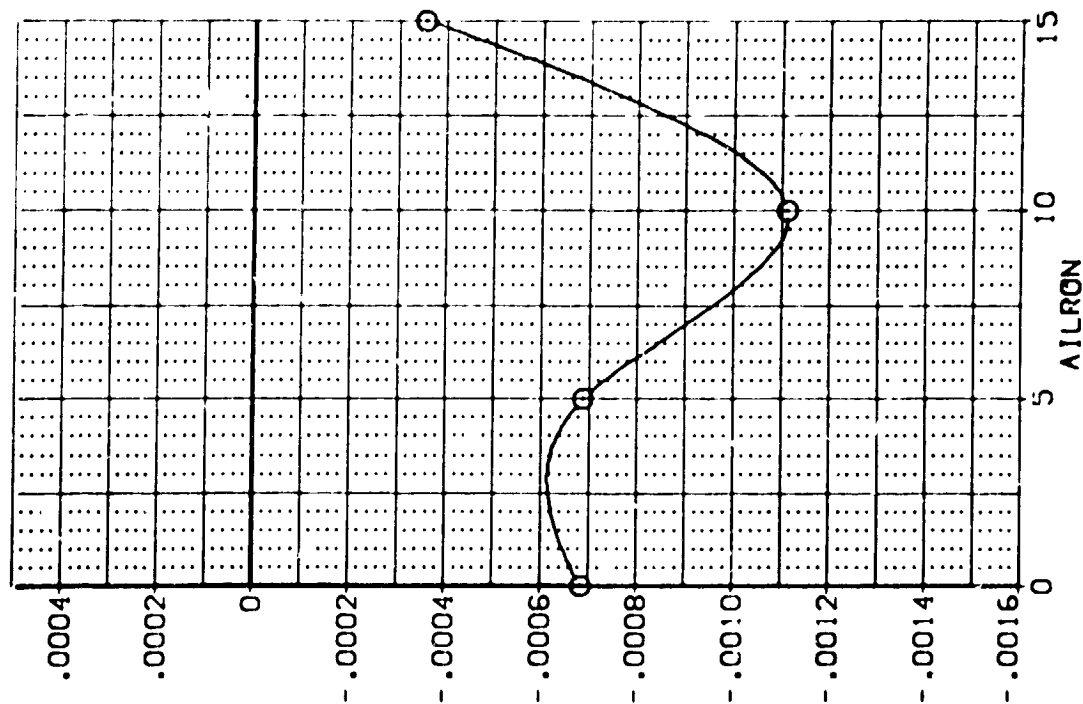
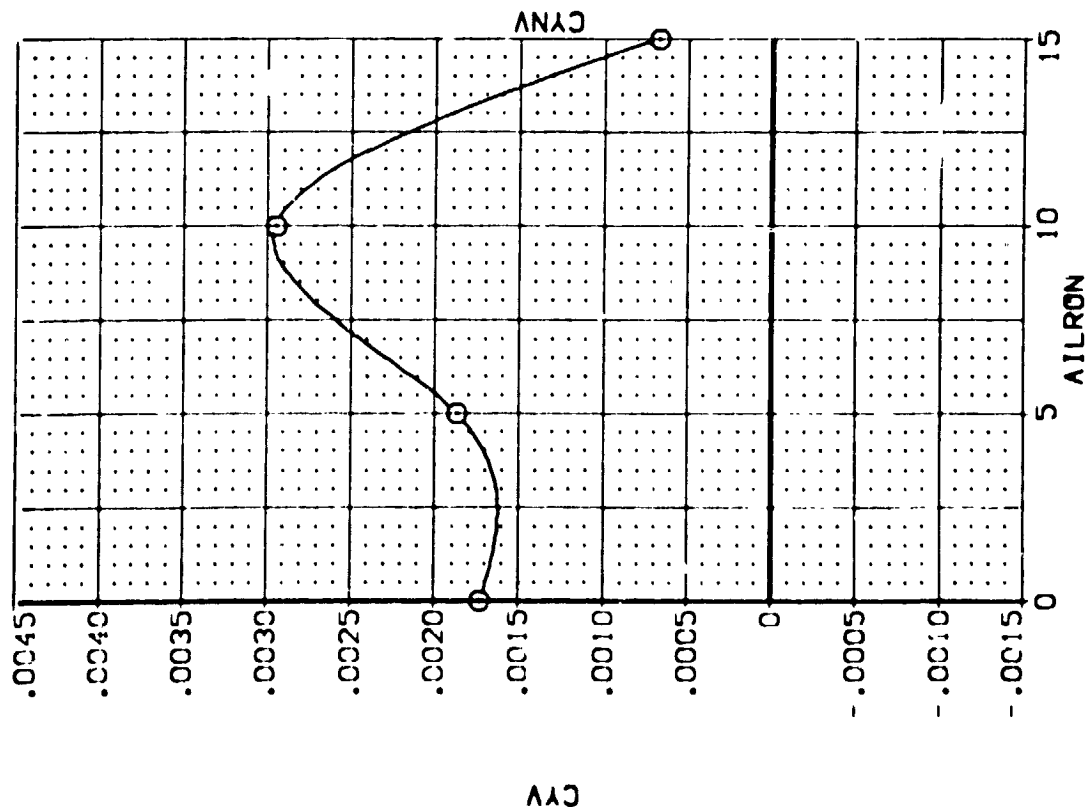


FIG. 36 EFFECT OF AILERON DEFLECTION ON VERTICAL TAIL

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (DEL002)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATASET	AILRON	SREF	REFERENCE INFORMATION
○	.000		BETA	AILRON	DEL005	5.000	LRFF	2.4210 SQ.F.
			BOFLAP	10.000	DEL044	15.000	BREF	14.2440 N.
			RUDER				YMRP	28.1004 N.
			ELEV-R				ZMRP	32.3010 N.
							SCALE	.0000 N.
								11.2500 IN.
								.0300 SCALE

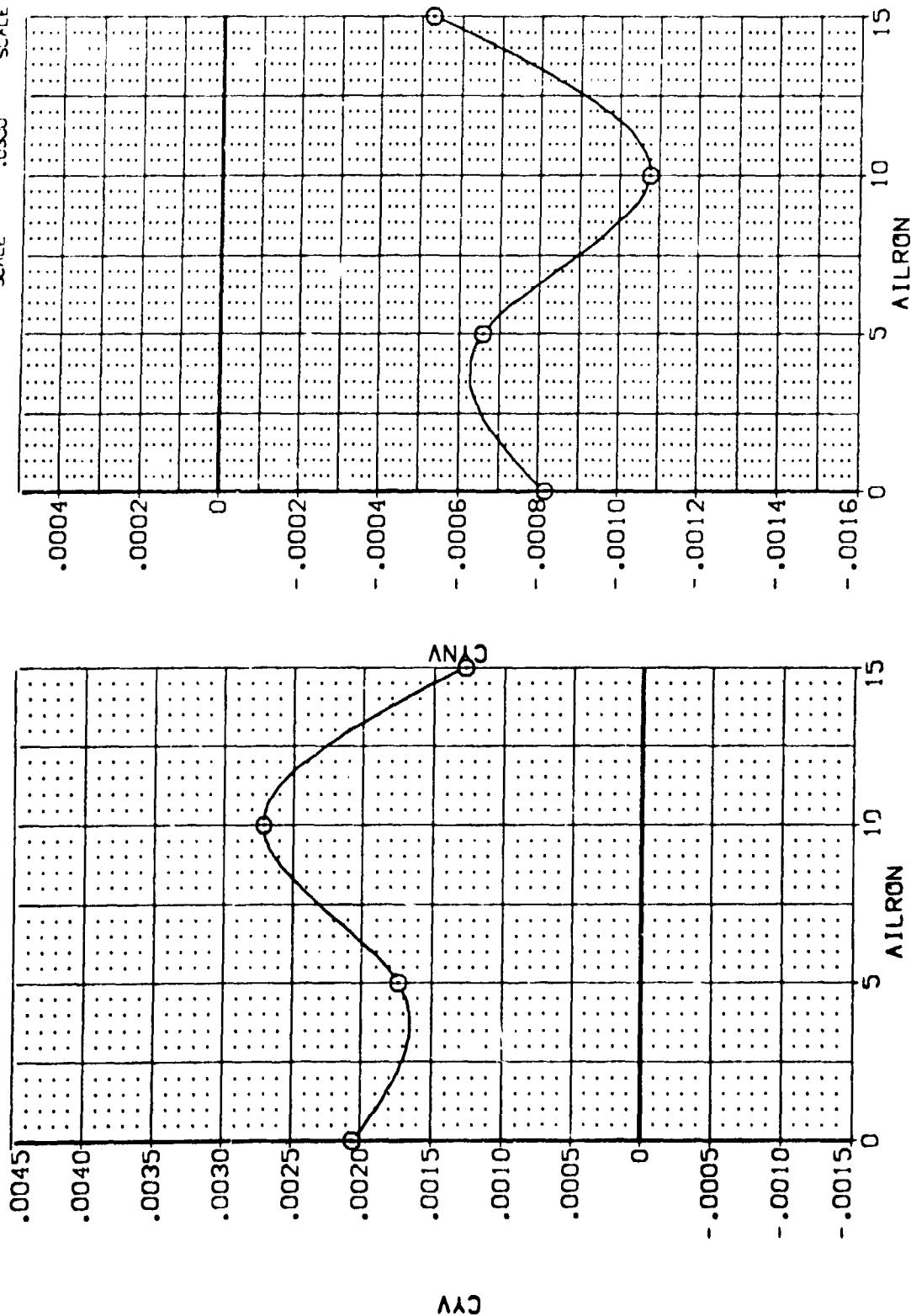


FIG. 36 EFFECT OF AILERON DEFLECTION ON VERTICAL TAIL

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (DELO02)

SYMBOL	ALPHA	10.000	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
○			MACH	BETA	BOFLAP	DELO02	AILRON	DELO05	DELO14	AILRON	SREF	SC.F.T.
			ELEVON	-10.000	-11.700	DELO02	.000	DELO05	DELO14	5.000	LREF	14.244C
			SPDBRK	55.000	RUDDER	DELO21	10.000	DELO05	DELO14	15.000	BREF	28.1004
			ELEV-L	-10.000	ELEV-R	-10.000					XREF	32.301C
											YREF	10.000
											ZREF	11.2500
											SCALE	.0300

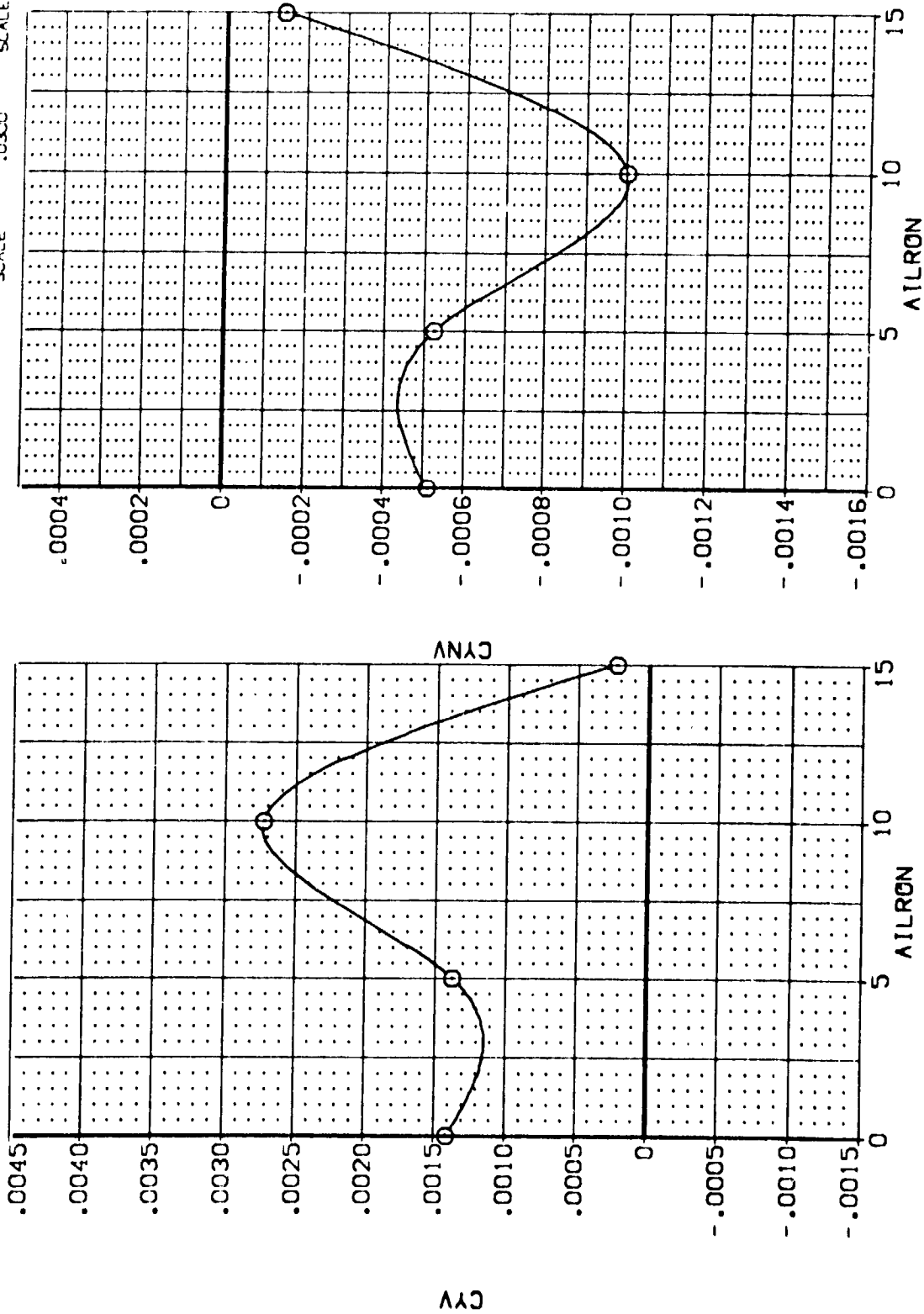


FIG. 36 EFFECT OF AILERON DEFLECTION ON VERTICAL TAIL



ARC 87-747 0A53C B C M F W1 V NOM. RN/L (DEL002)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
○	20.000	MACH	3.000	BETA	.000	DATASET	AILRON	SREF	2.4210	SD.FT.	
		ELEVON	-10.000	BDFLAP	-11.700	DEL002		LREF	14.2440	N.	
		SPOBRK	55.000	RJODER	.000	DEL021		BREF	28.1004	N.	
		ELEV-L	-10.000	ELEV-R	-10.000			AMRP	32.3010	N.	
								ZMRP	.0000	N.	
								SCALE	11.2500	N.	
									.0300	SCALE	

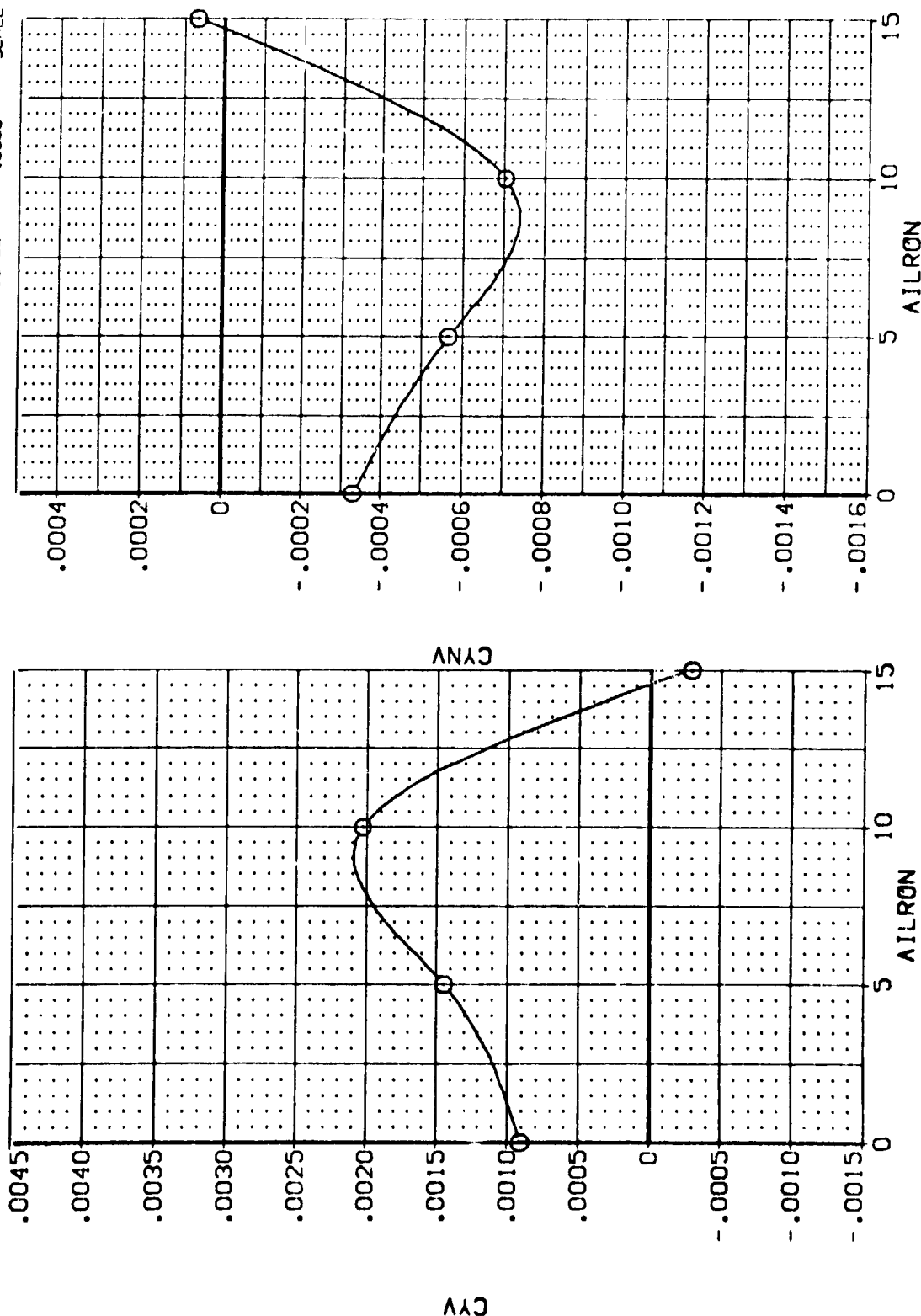


FIG. 36 EFFECT OF AILERON DEFLECTION ON VERTICAL TAIL

APC 87-747 CA53C B C M F W: V NOM. RN/L (DELO02)

SYMBOL ALPHA .000

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
MACH	3.500	BETA	.000	DELO02	DELO02
ELEVON	-10.000	BOFLAP	-11.700	DELO02	DELO02
SPOBRK	55.000	RUDER	.000	DELO21	DELO02
ELEV-L	-10.000	ELEV-R	-10.000		

SPEE	2.4210	SCALE	10.000
REF	14.2440		
BOEF	28.1004		
XAPP	32.3010		
YAPP	.0000		
ZAPP	11.2500		
SCALE	10.000		

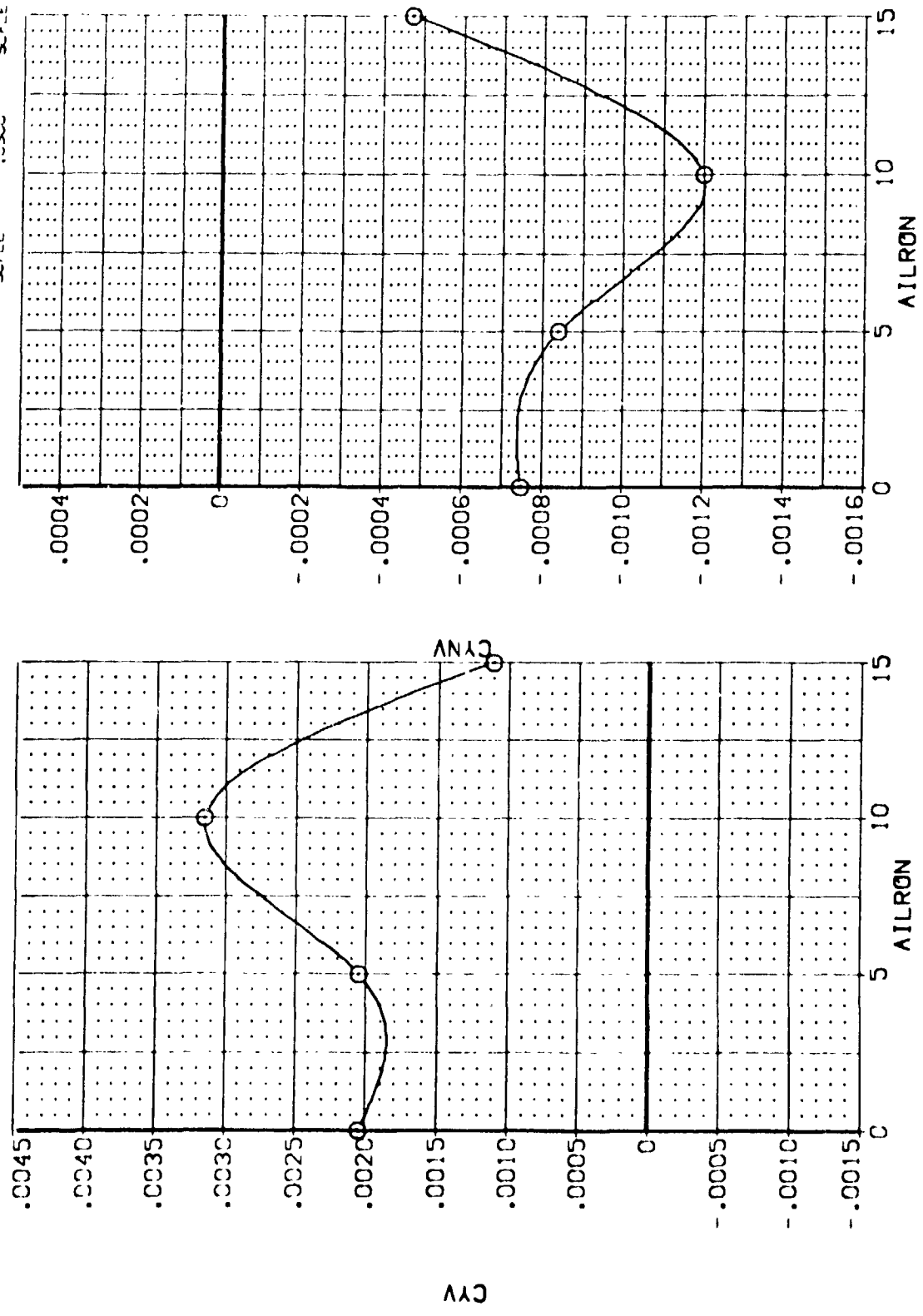


FIG. 36 EFFECT OF AILERON DEFLECTION ON VERTICAL TAIL

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (DELO02)

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
○	10.000	MACH	BETA	BOFLAP	DELO02	AILRON	AILRON	SREF	2.4210	SO.FT.			
		ELEVON	-10.000	-11.700	DELO02	.000	5.000	REF	14.2440				
		SPDRM	55.000	RUDDER	DELO21	10.000	15.000	REF	28.1004				
		ELEV-L	-10.000	ELEV-R	-10.000			YPRP	32.3010				
								ZPRP	.0000				
								SCALE	11.7500				
									.0300				

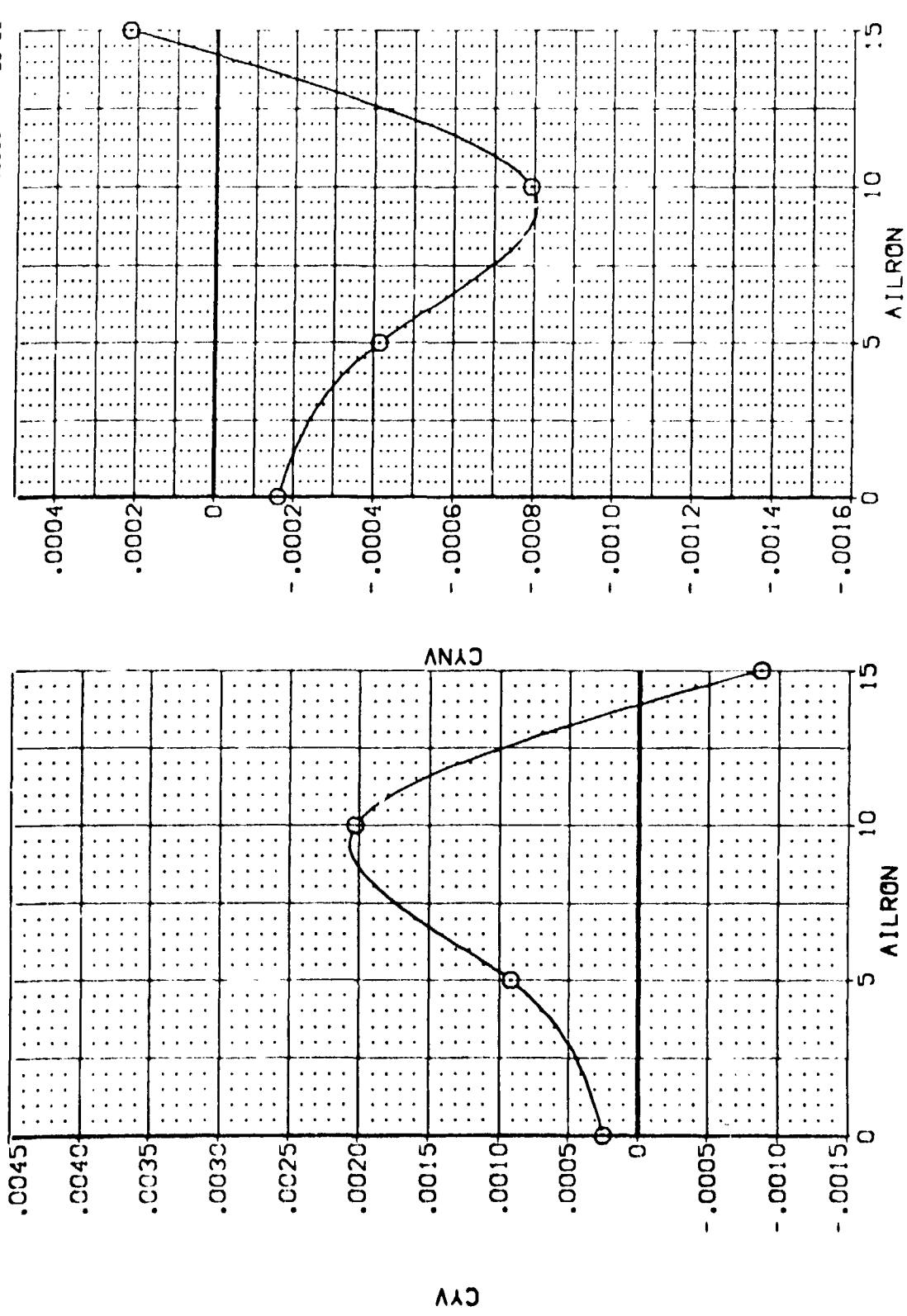


FIG. 36 EFFECT OF AILERON DEFLECTION ON VERTICAL TAIL

ARC 87-747 3A53C B C M F W1 V NOM. RN/L (DELO02)

SYMBOL  
○

ALPHA  
20.000

MACH  
ELEVON  
SPOBRK  
ELEV-L

PARAMETRIC VALUES  
3.500 BETA  
-10.000 BDFLAP  
55.000 RUDDER  
-10.000 ELEV-R

.000 DATASET  
-11.700 DELO02  
.000 DELO21  
-10.000

DATA SOURCE  
AILRON  
10.000

DELO05  
DELO44

AILRON  
5.000  
15.000

SREF  
LREF  
BREF  
XMRP  
YMRP  
ZMRP  
SCALE

REFERENCE INFORMATION  
2.4210 SQ.FT.  
14.2440  
28.1004  
32.3010  
.0000  
11.2500  
.0300

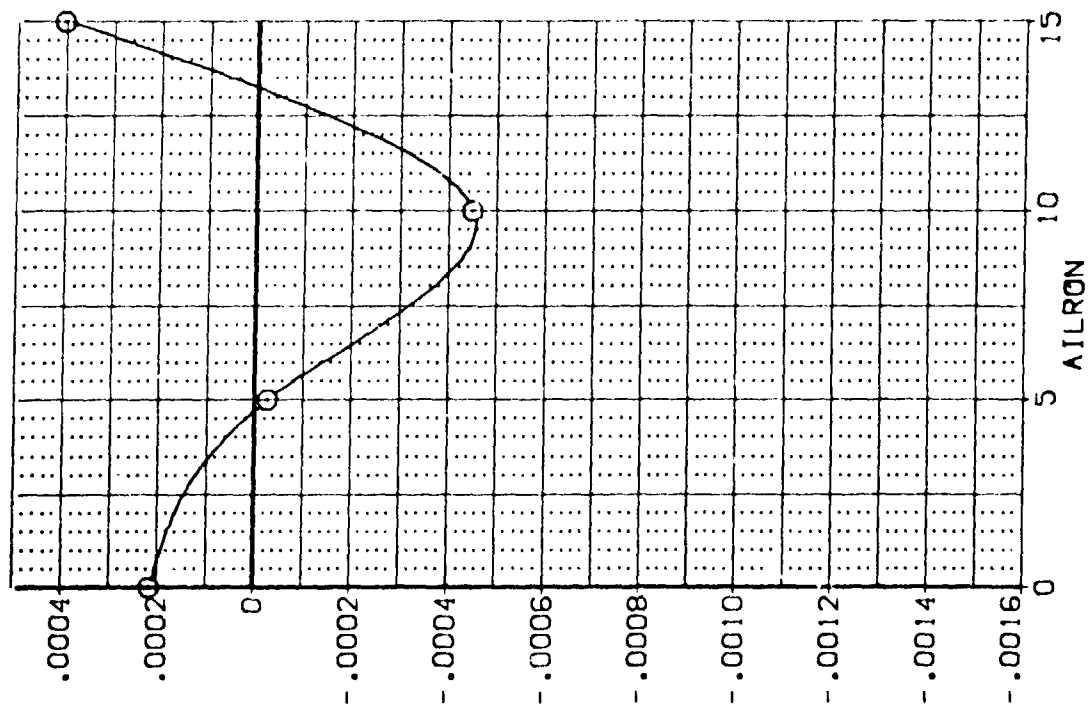
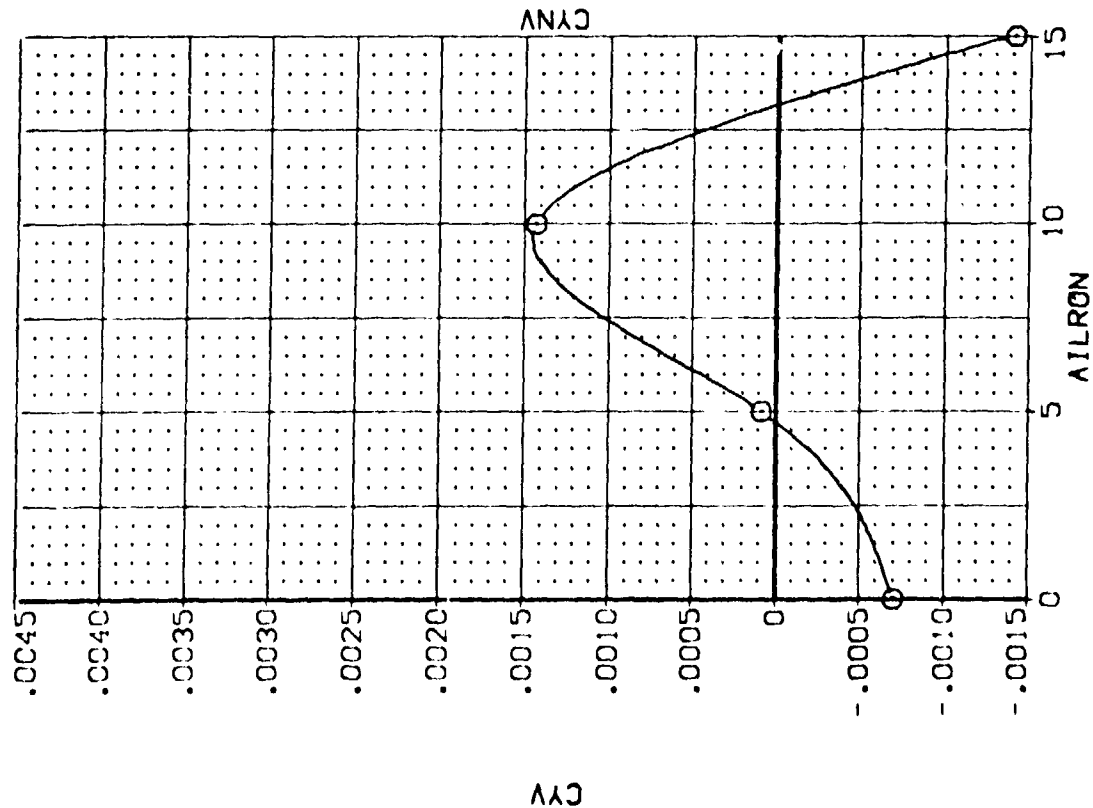


FIG. 36 EFFECT OF AILERON DEFLECTION ON VERTICAL TAIL

ARC 87-747 OAS3C B C M F W1 V NOM. RN/L (DE-051)

SYMBOL  
 ○ 1.0  
 ◇ 0.1

ALPHA  
 .000  
 10.000  
 20.000

MACH  
 2.500  
 ELEVON  
 BDF AP  
 ELEV-L

PARAMETRIC VALUES  
 BETA .000  
 ATLRON .000  
 SPOBRK 25.000  
 ELEV-R .000

REFERENCE 1/4 SPAN 10.  
 SCFF 2.4210  
 REF 14.244  
 BRFF 28.1004  
 32.3000  
 14000  
 11.2000  
 10300  
 SCALE

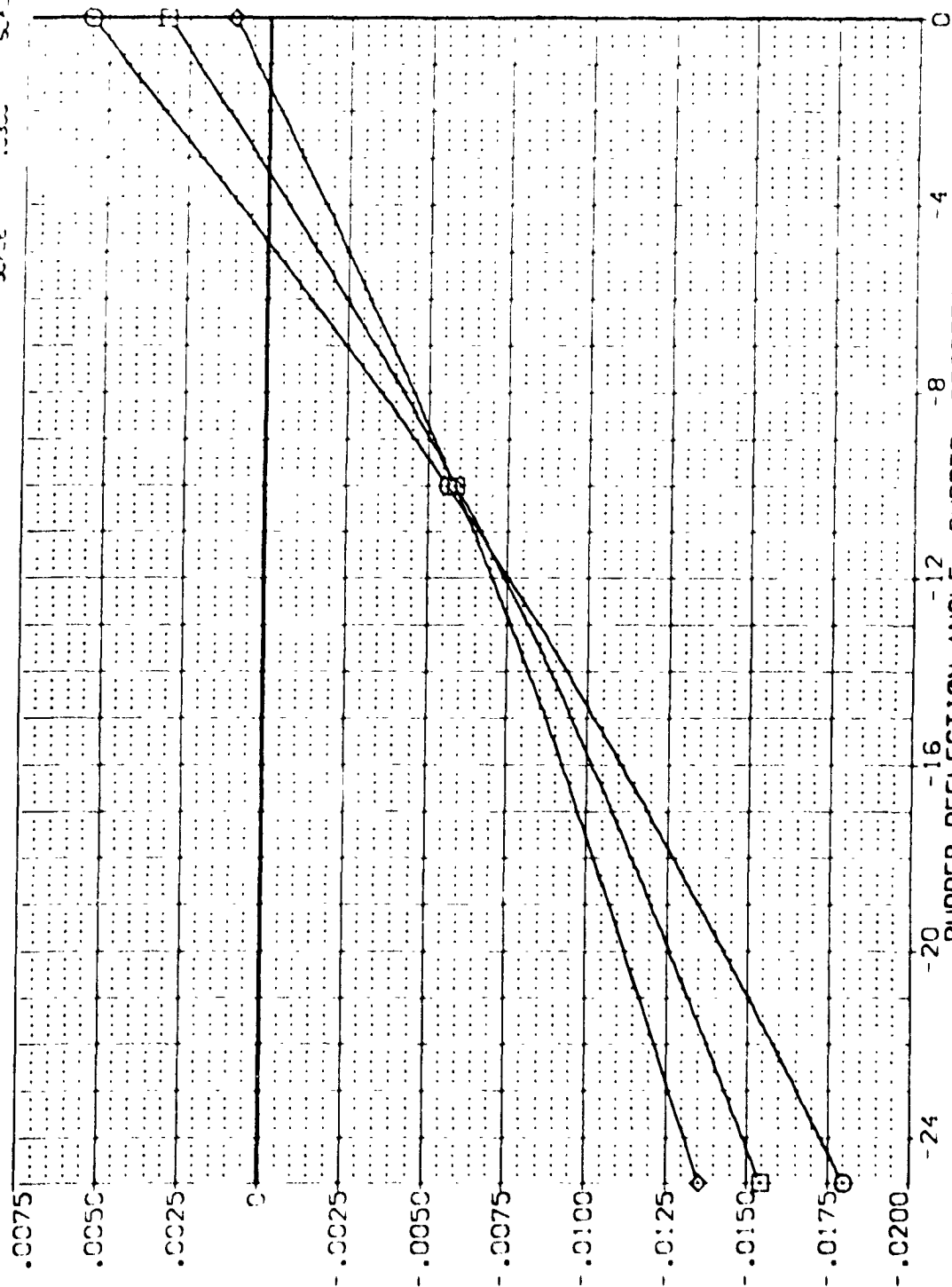


FIG. 37 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 25 DEGREES

ARC 87-747 0A53C B C M F W I V NOM. RN/L (001051)

SYMBOL ALPHA

○ .000  
◊ 10.000  
◊ 20.000

PARAMETRIC VALUES

MACH 3.000 BETA .000  
ELEVON .000 AILRON .000  
BOFLAP -11.700 SPEEDRK 25.000  
FLYV-L .000 ELEV-R .000

REFERENCE INFORMATION

SREF 2.4210 SQ.FT.  
LREF 14.2440 IN.  
BREF 28.1004 IN.  
XREF 32.3010 IN.  
YREF 10.0000 IN.  
ZREF 11.0000 IN.  
SCALE .0300

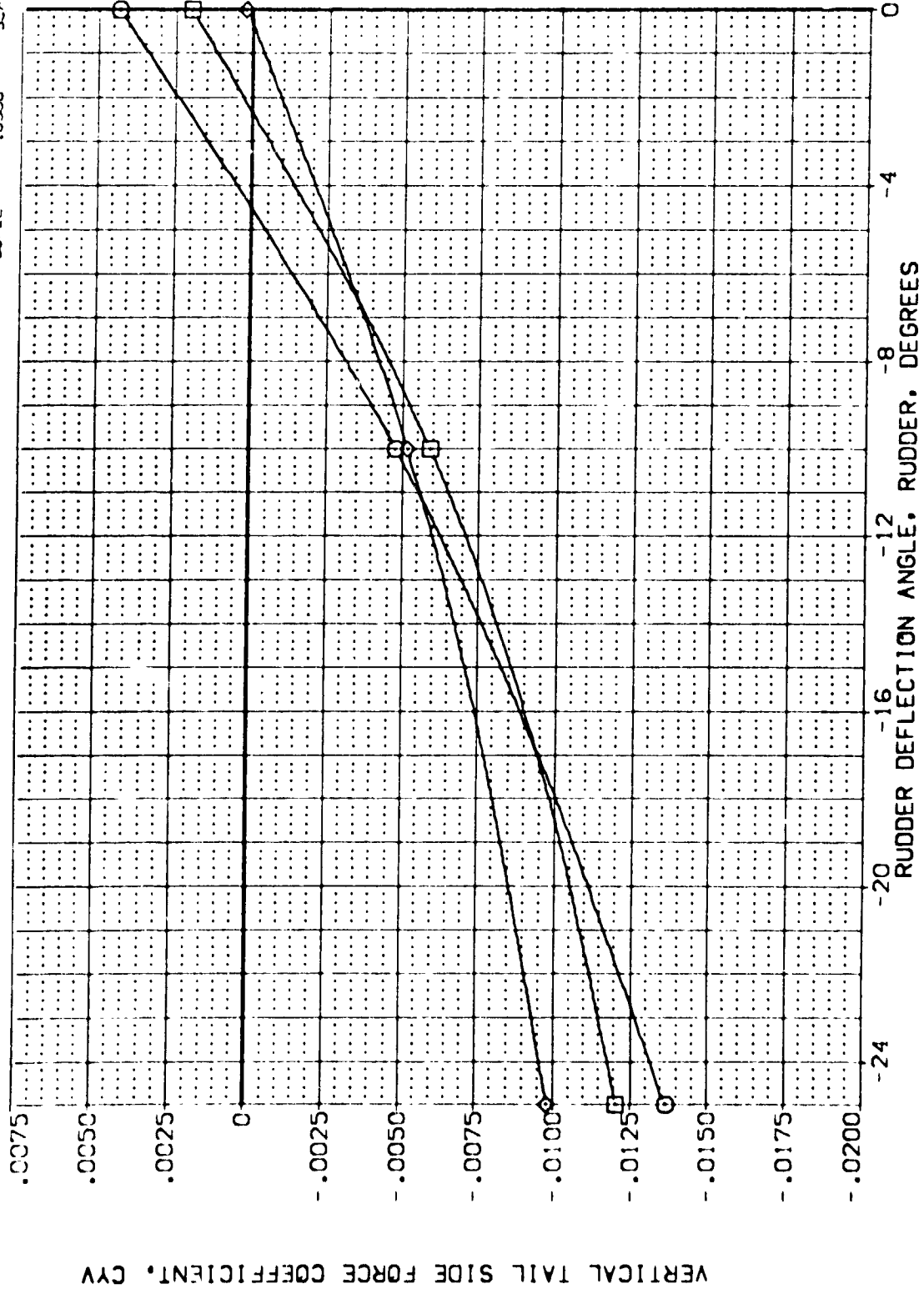


FIG. 37 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 25 DEGREES

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (DELO51)

SYMBOL  
 ○  
 ◇

ALPHA  
 .000  
 10.000  
 20.000

MACH  
 .000  
 ELEVON  
 BOFLAP  
 ELEV-L

PARAMETRIC VALUES  
 3.500 BETA  
 .000 AILRON  
 -11.700 SPOBRK  
 .000 ELEV-R

.000  
 .000  
 25.000  
 .000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.2440  
 BREF 28.1004  
 XMRP 32.3010  
 YMRP 10.000  
 ZMRP 11.2500  
 SCALE .0300

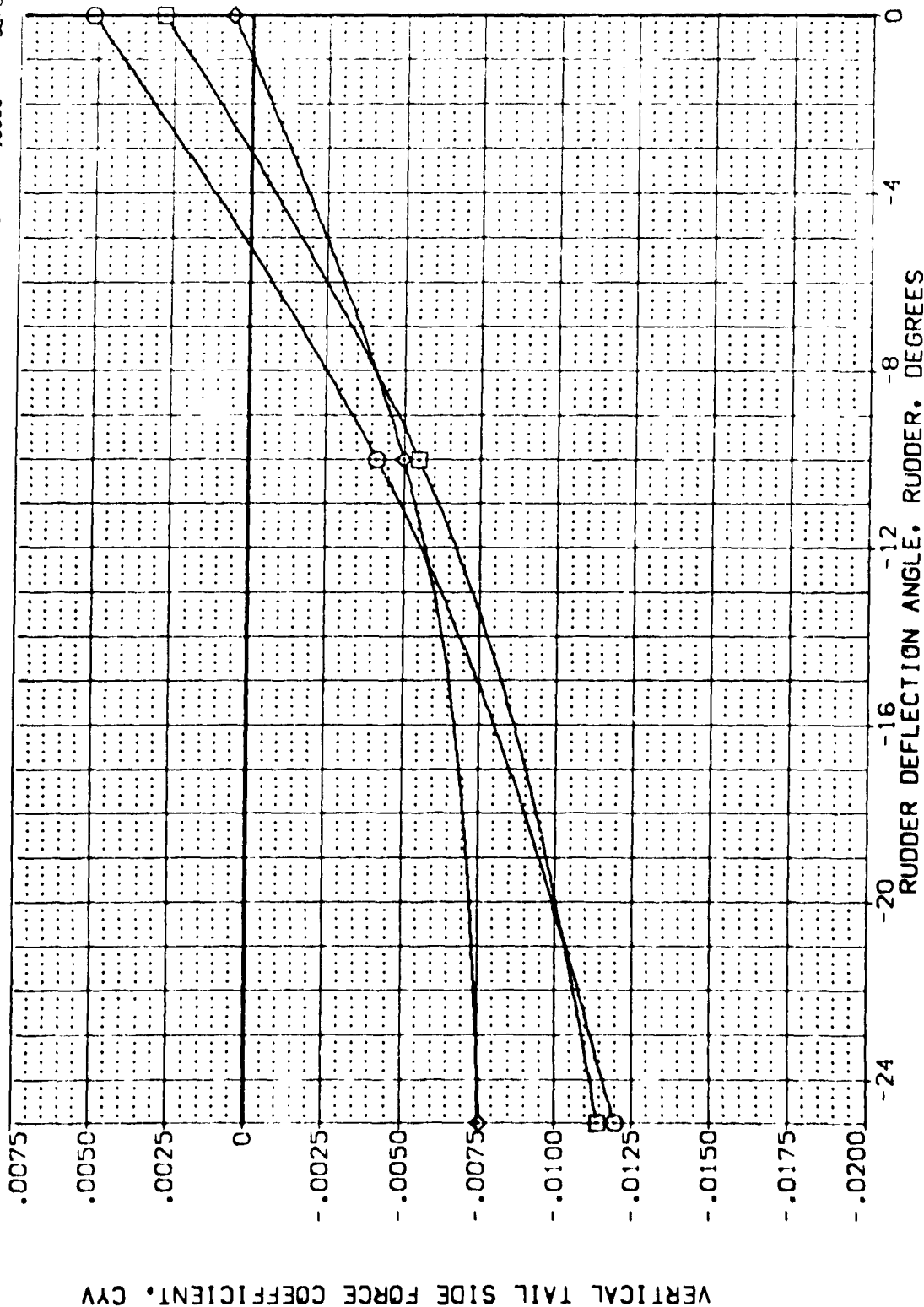



FIG. 37 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 25 DEGREES

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (DELO51)

SYMBOL  


ALPHA  
 .000  
 10.000  
 20.000

PARAMETRIC VALUES  
 MACH 2.500  
 ELEVON .000  
 BDFLAP -11.700  
 ELEV-L .000  
 BETA .000  
 AILRON .000  
 SPOBRK 25.000  
 ELEV-R .000

REFERENCE INFORMATION  
 SREF 2.421C  
 WREF 14.244C  
 BREF 28.004  
 XREF 32.301C  
 YREF .000  
 ZREF 11.750C  
 SCALE .03C

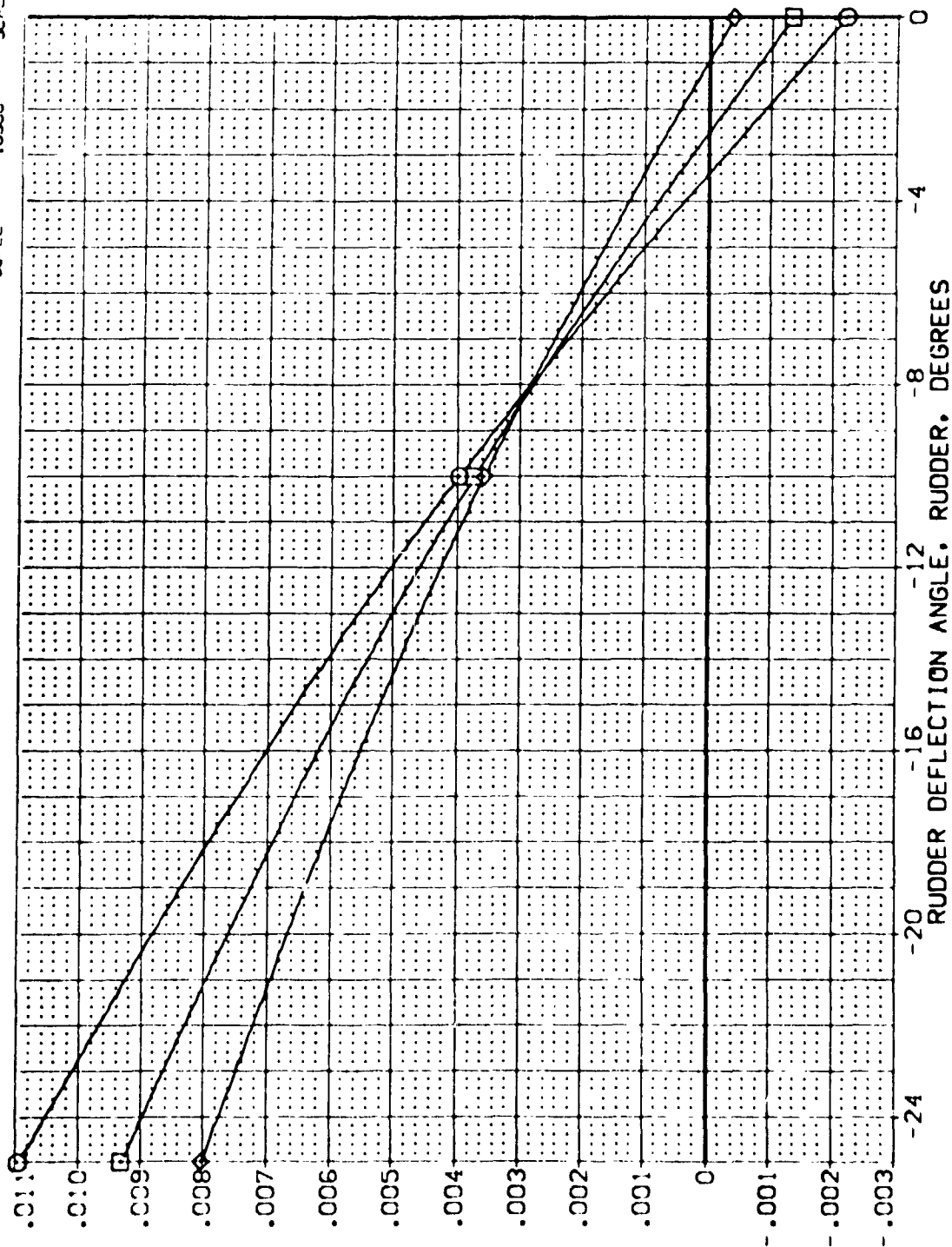


FIG. 37 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 25 DEGREES



ARC 87-747 0A53C B C M F W1 V NOM. RN/L (DELO51)

SYMBOL

PARAMETRIC VALUES	REFERENCE INFORMATION
ALPHA .000	SREF 2.4210 SQ.FT.
MACH 3.000	LREF 14.2440
ELEVON .000	BREF 28.1004
BDFLAP -11.700	WREF 32.3010
ELEV-L .000	WREF 11.2500
ELEV-R .000	SCALE .0300

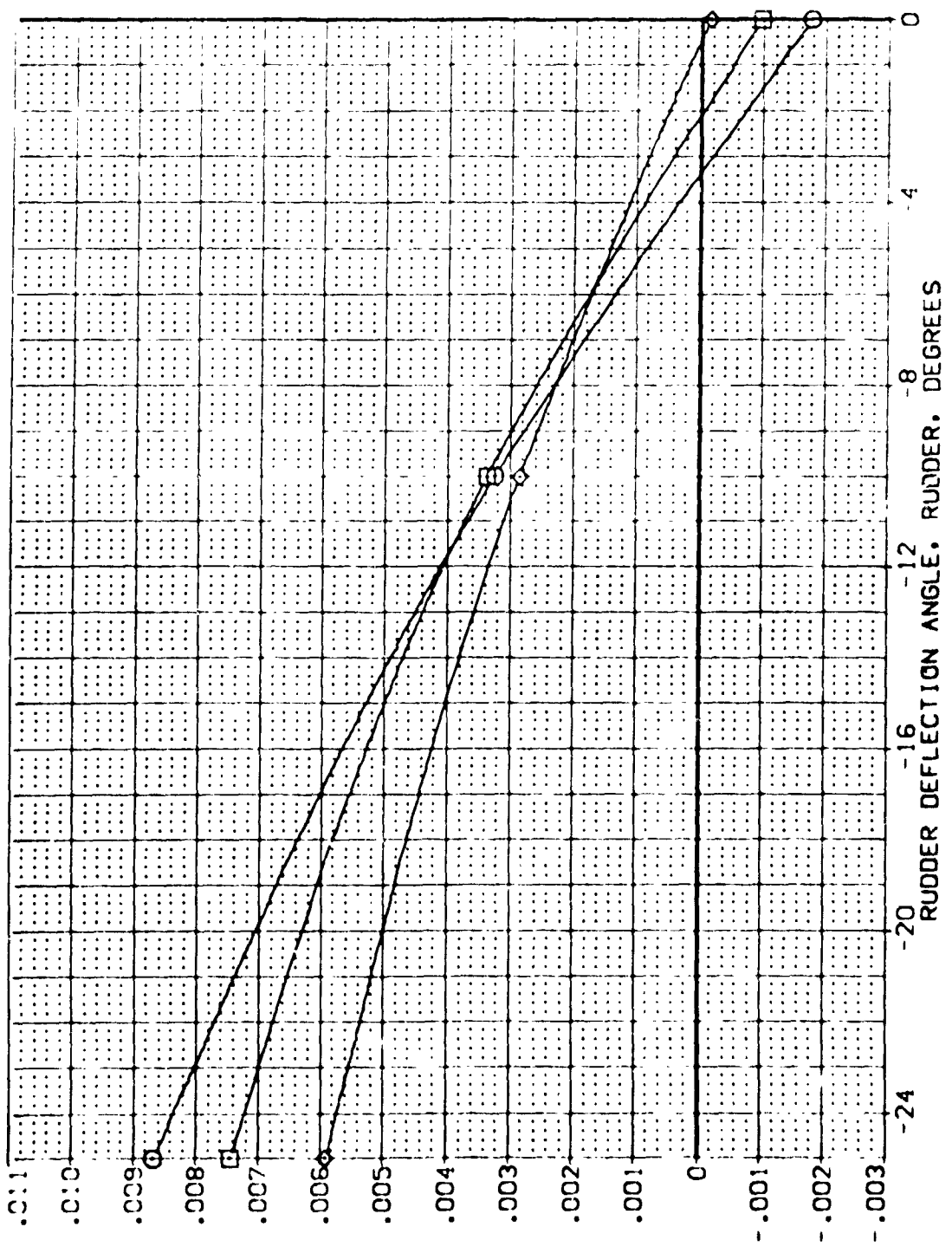


FIG. 37 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 25 DEGREES

ARC 87-747 OA53C B C M F W I V NOM. RN/L (DELOS)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	SPR F	REF	SCALE
○	.000		BETA	2.4210		11.2500
□	.000		ALPHON	14.2440		11.2500
◇	.000		SPDRK	32.3010		11.2500
	.000		ELEV-R	11.2500		11.2500
	.000		ELEV-L	11.2500		11.2500
	.000		SPDRK	32.3010		11.2500
	.000		ALPHON	14.2440		11.2500
	.000		BETA	2.4210		11.2500

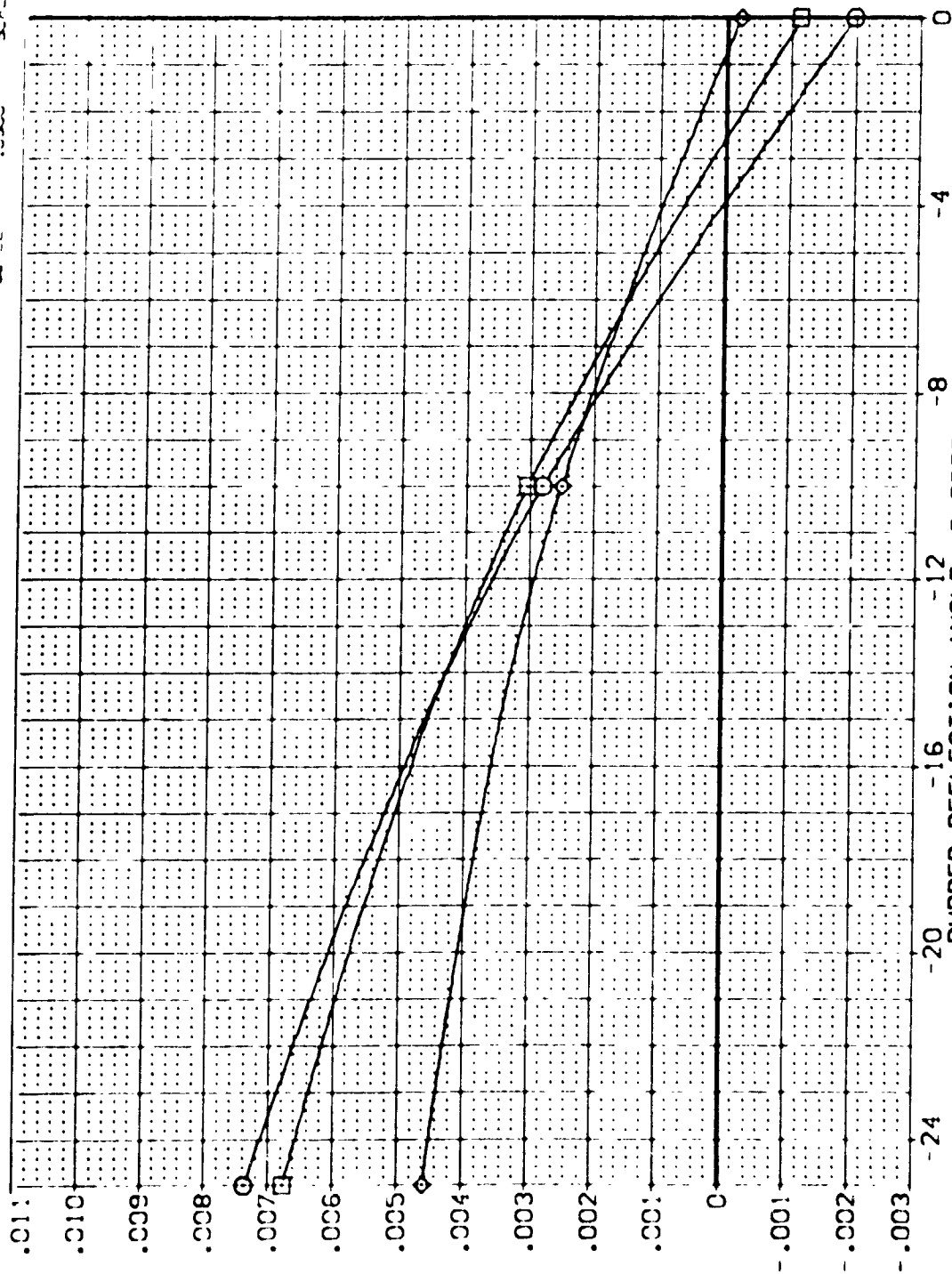


FIG. 37 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 25 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION

ARC	87-747	0453C	B	C	M	F	V	Y	NON	RVUL
ARC	87-747	0453C	B	C	M	F	V	Y	NON	RVUL
ARC	87-747	0453C	B	C	M	F	V	Y	NON	RVUL
ARC	87-747	0453C	B	C	M	F	V	Y	NON	RVUL

ALPHA RUDDER BOFLAP SPEEDRK REFERENCE INFORMATION

ALPHA	RUDDER	BOFLAP	SPEEDRK	SREF	2.4210	50.17
0.000	0.000	-11.700	25.000	LREF	14.2440	10.000
10.000	0.000	-11.700	25.000	BREF	28.1004	10.000
20.000	0.000	-11.700	25.000	XREF	32.3010	10.000
				YREF	0.0000	10.000
				ZREF	11.2500	10.000
				SCALE	0.300	10.000

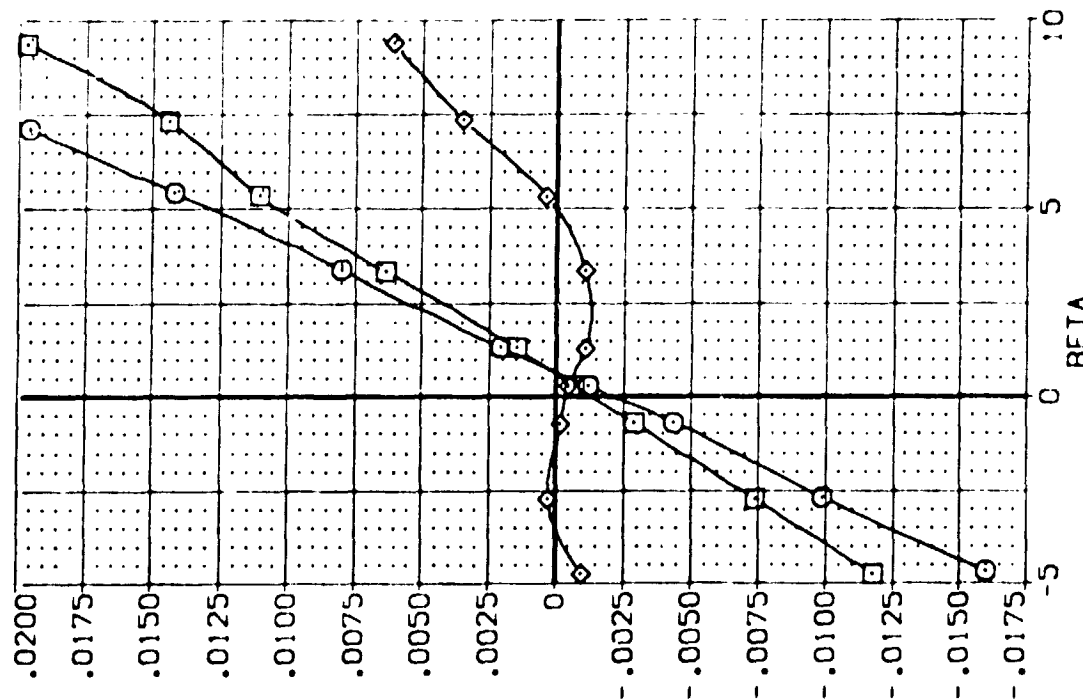
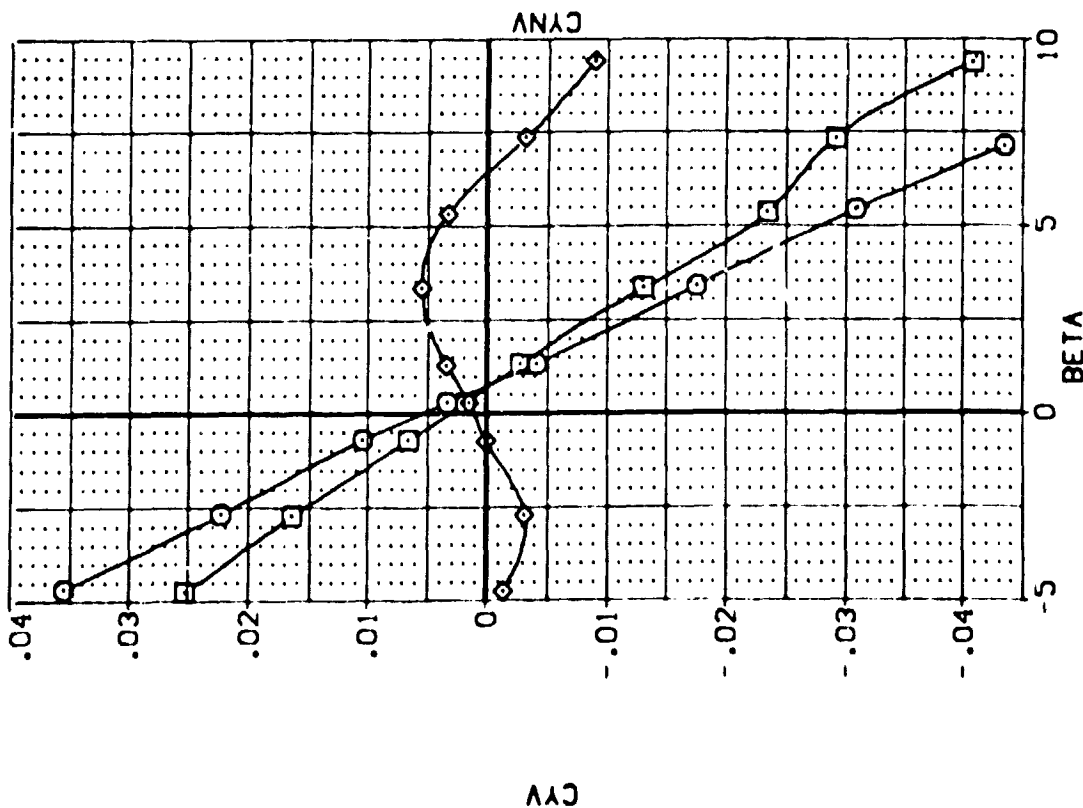


FIG. 38 VERTICAL TAIL LOADS VERSUS SIDE SLIP, SPEEDBRAKE = 25 DEGREES

(A) MAC = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (AE-075) Q ARC 87-747 CASIC B C M F V V V NON- RN/L  
 (AE-076) Q ARC 87-747 CASIC B C M F V V V NON- RN/L  
 (AE-077) Q ARC 87-747 CASIC B C M F V V V NON- RN/L

ALPHA RUDDER BDF LAP SPEEDR SKID  
 .000 .000 .000 .000 25.000 25.000  
 10.000 .000 .000 .000 25.000 25.000  
 20.000 .000 .000 .000 25.000 25.000

REFERENCE INFORMATION:  
 SREF 2.4210 SC.F.T.  
 LREF 14.2440  
 BREF 28.1004  
 YMRD 32.3010  
 ZMRD 11.2500  
 SCALE .0300

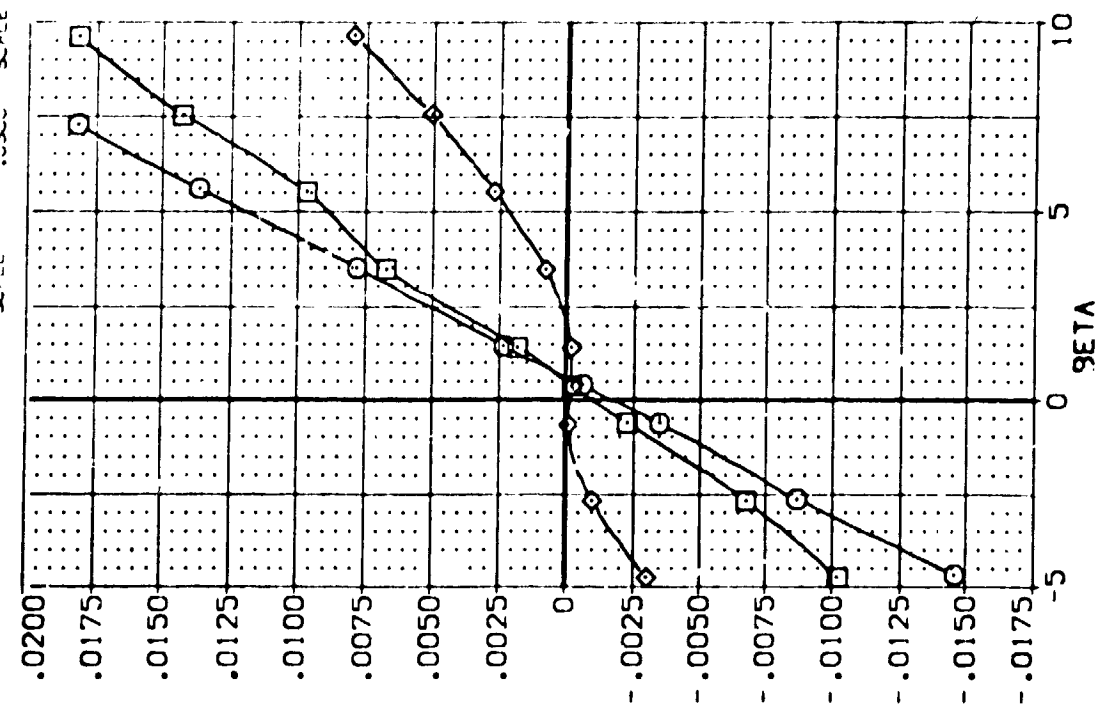
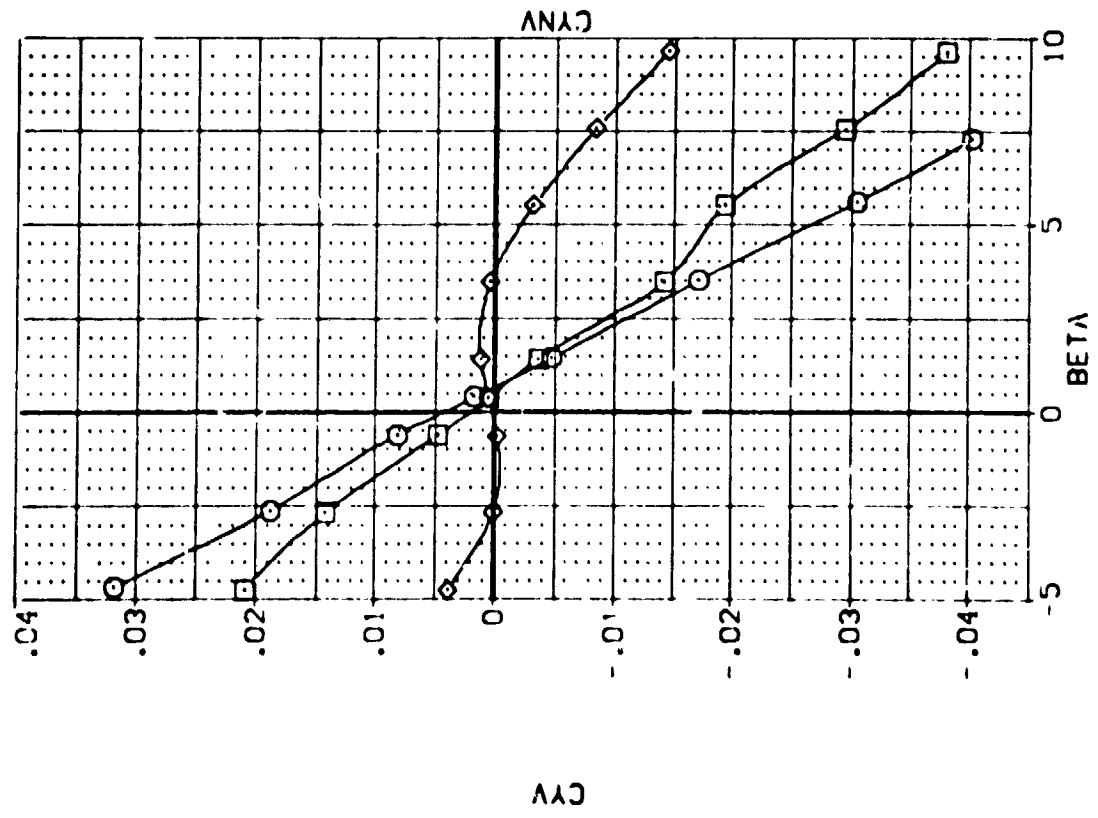


FIG. 38 VERTICAL TAIL LOADS VERSUS SIDESLIP. SPEEDBRAKE = 25 DEGREES

(B)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BO/LAP	SPEEDBRAK	REFERENCE INFORMATION
(AEL025)	ARC 87-747 QAS3C B C M F VI	.000	.000	-11.700	25.000	SREF 2.4210 30.FT.
(AEL026)	ARC 87-747 QAS3C B C M F VI	10.000	.000	-11.700	25.000	LREF 14.2440 IN.
(AEL027)	ARC 87-747 QAS3C B C M F VI	20.000	.000	-11.700	25.000	BREF 20.1001 IN.
						XMFG 32.3016 IN.
						YMFG 11.0000 IN.
						ZMFG 11.0000 IN.
						SCALE .0000

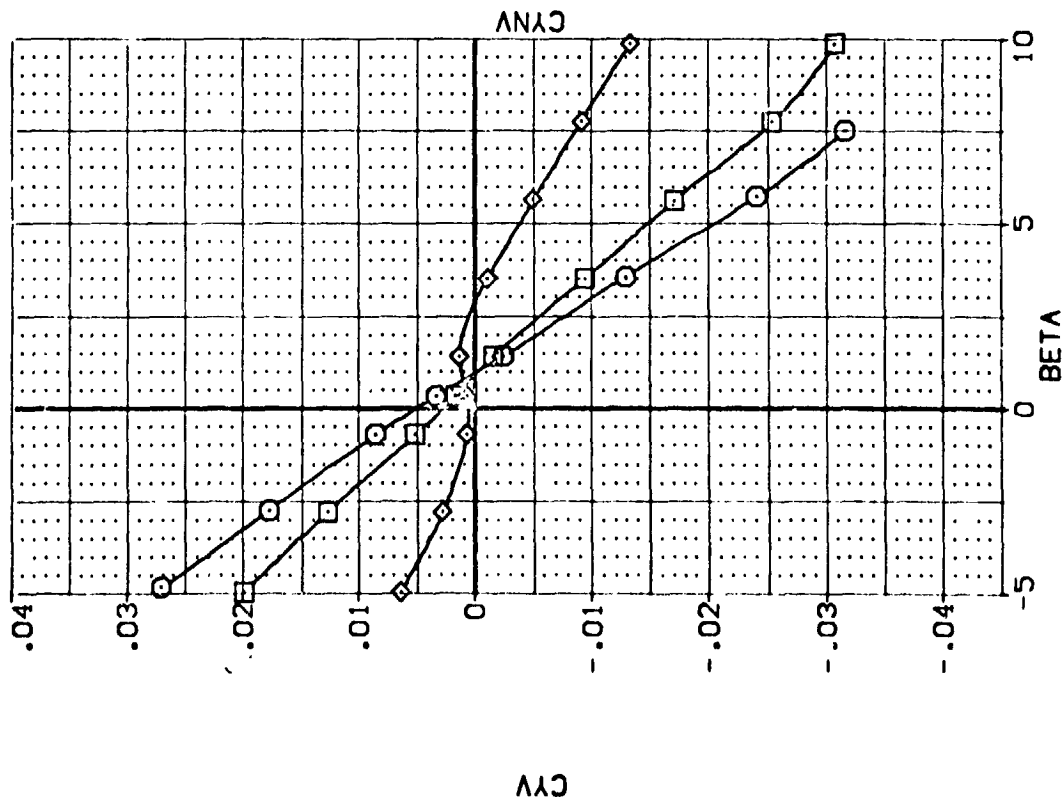


FIG. 38 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 25 DEGREES

(C)MACH = 3.50

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDF LAP	SPOBRK	REFERENCE INFORMATION
(AEL035)	ARC 87-747 OAS3C B C M F VI V	0.000	-10.000	-11.700	25.000	SREF 2.4210 SC.FT.
(AEL036)	ARC 87-747 OAS3C B C M F VI V	10.000	-10.000	-11.700	25.000	LREF 14.2440
(AEL037)	ARC 87-747 OAS3C B C M F VI V	20.000	-10.000	-11.700	25.000	BREF 28.1004
						XMRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

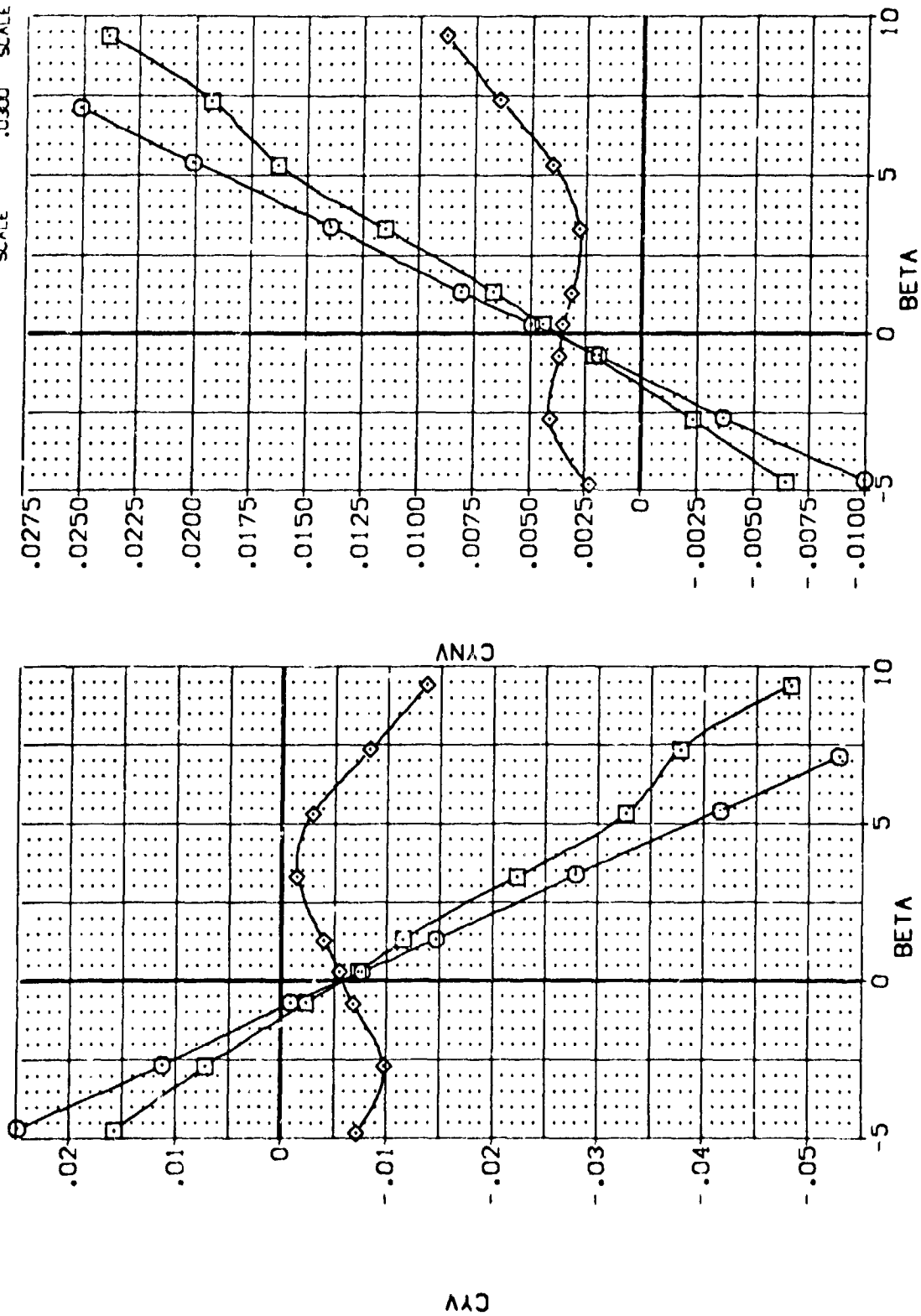


FIG. 38 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 25 DEGREES

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[AELO35] ARC 87-747 QAS5C B C M F V I V NOM. RV/L

[AELO36] ARC 87-747 QAS5C B C M F V I V NOM. RV/L

[AELO37] ARC 87-747 QAS5C B C M F V I V NOM. RV/L

ALPHA RUDDER BOLFAP SPEEDBRAK

0.000 -10.000 -11.700 25.000

10.000 -10.000 -11.700 25.000

20.000 -10.000 -11.700 25.000

REFERENCE INFORMATION

SREF 2.4210 SC.FT.

LREF 14.7440 N.

BREF 28.1004 N.

XMRP 32.9010 N.

YMRP .0000 N.

ZMRP 11.2500 N.

SCALE .0300 N.

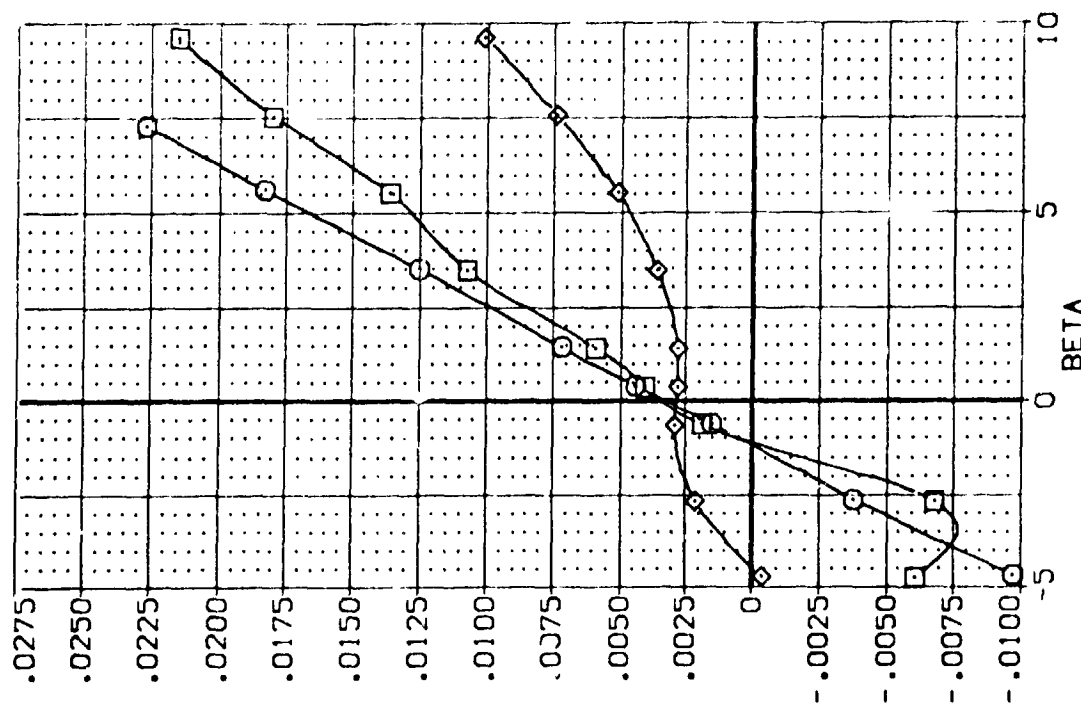
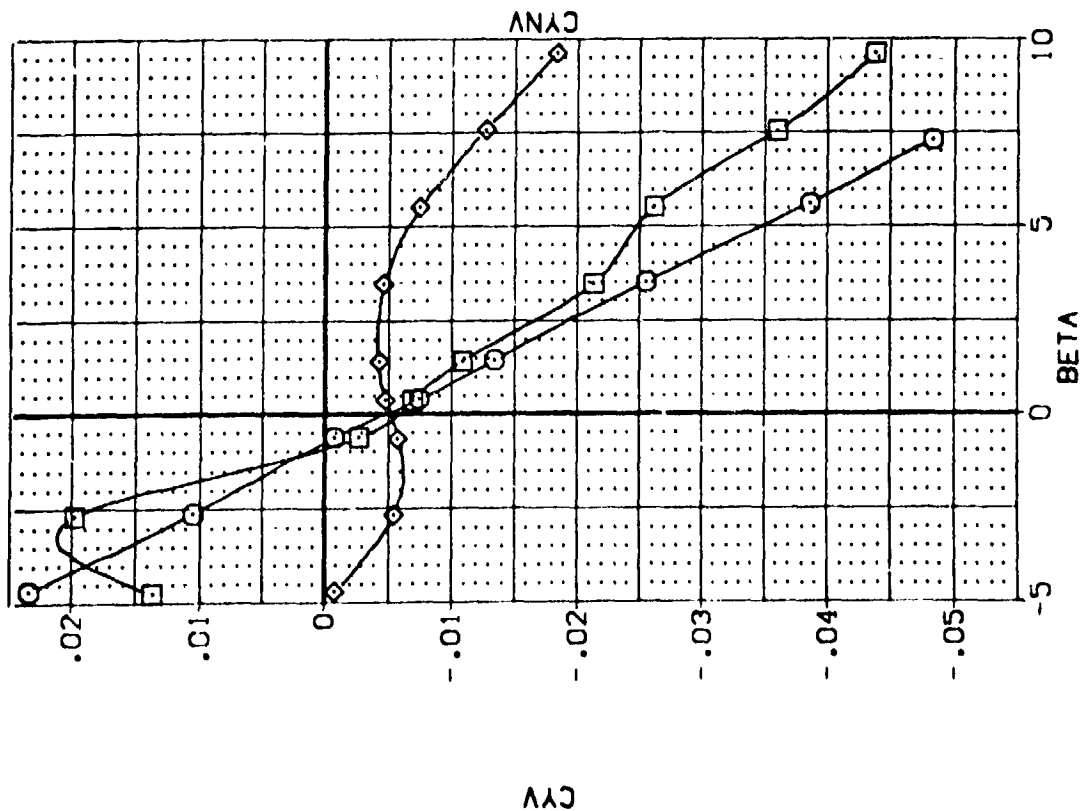


FIG. 38 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 25 DEGREES

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDER	BDF LAP	SPOBRK	REFERENCE INFORMATION
[AEL035]	ARC 87-747 D453C B C M F VI V	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[AEL036]	ARC 87-747 D453C B C M F VI V	10.000	-10.000	-11.700	25.000	LREF 14.2440
[AEL037]	ARC 87-747 D453C B C M F VI V	20.000	-10.000	-11.700	25.000	BREF 28.1004
						XMRP 32.3010
						YMRP 0.0000
						ZMRP 11.2500
						SCALE 0.0000
						SCALE 0.0000

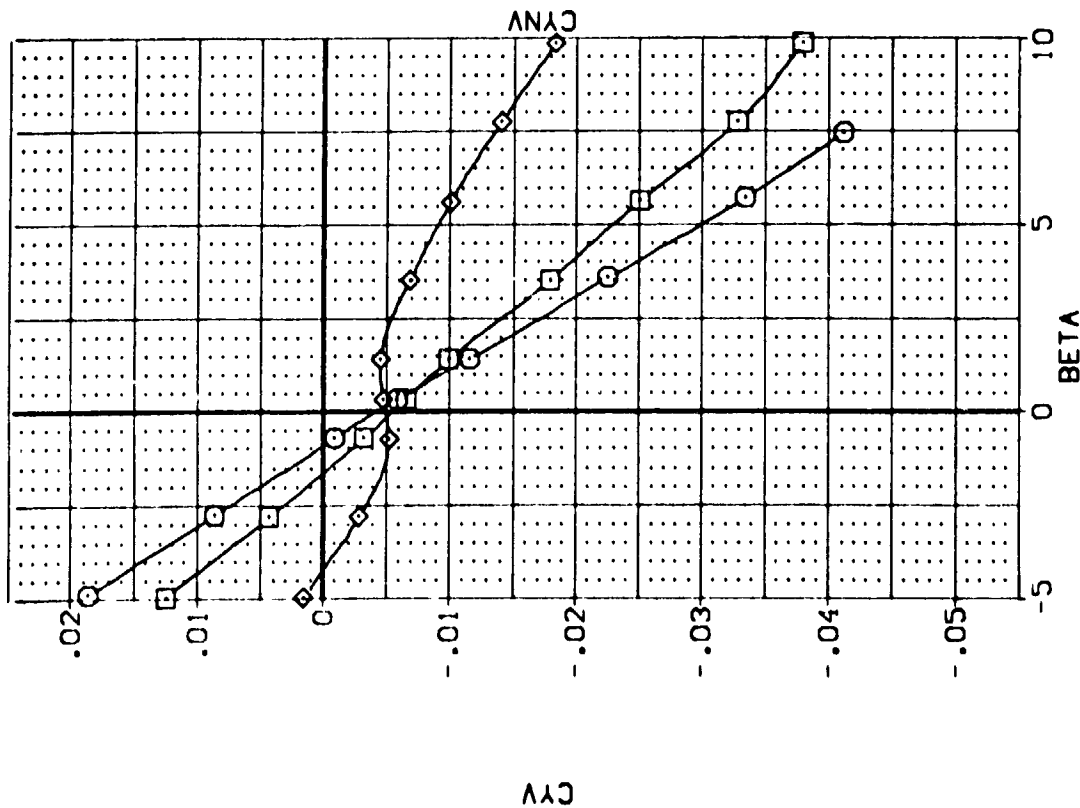


FIG. 38 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 25 DEGREES

(C)MACH = 3.50



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    NOT. RVNL

[AEL051]    ARC 87-747 0A53C B C M F VI V    NOT. RVNL

[AEL052]    ARC 87-747 0A53C B C M F VI V    NOT. RVNL

[AEL053]    ARC 87-747 0A53C B C M F VI V    NOT. RVNL

ALPHA    RUDDER    BOFLAP    SPEEDBRK

0.000    -25.000    -11.700    25.000

10.000    -25.000    -11.700    25.000

20.000    -25.000    -11.700    25.000

REFERENCE INFORMATION

SREF    2.4210    SQ.FT.

LREF    14.2440    IN.

BREF    28.1004    IN.

YMRP    32.3010    IN.

ZMRP    11.2500    IN.

SCALE    .0300    IN.

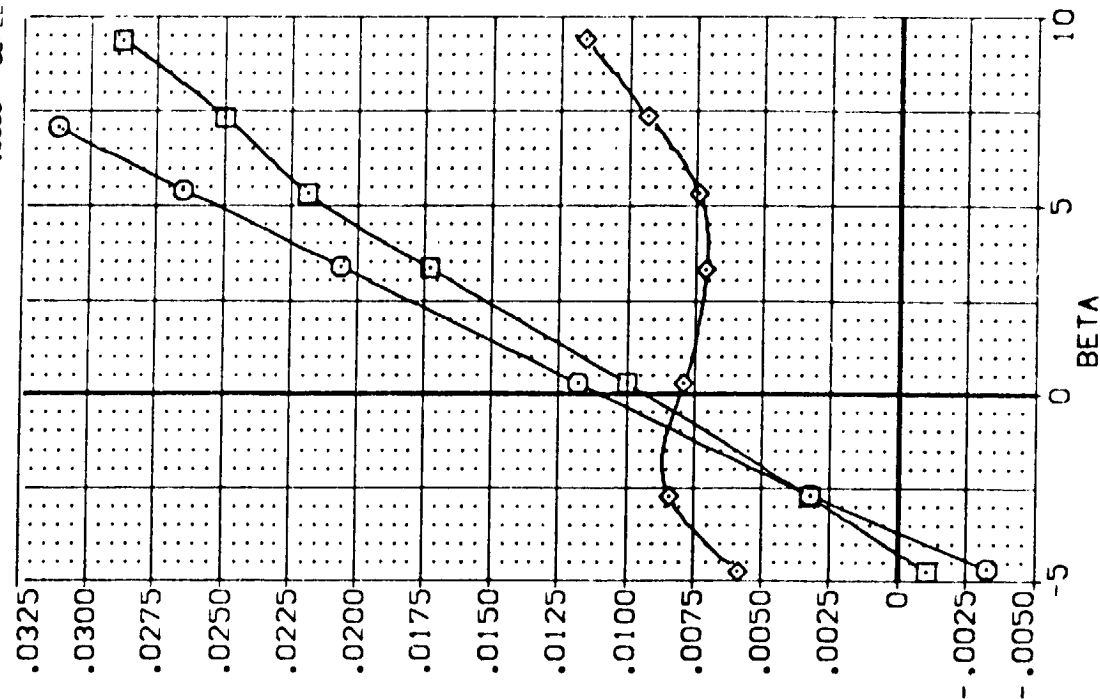
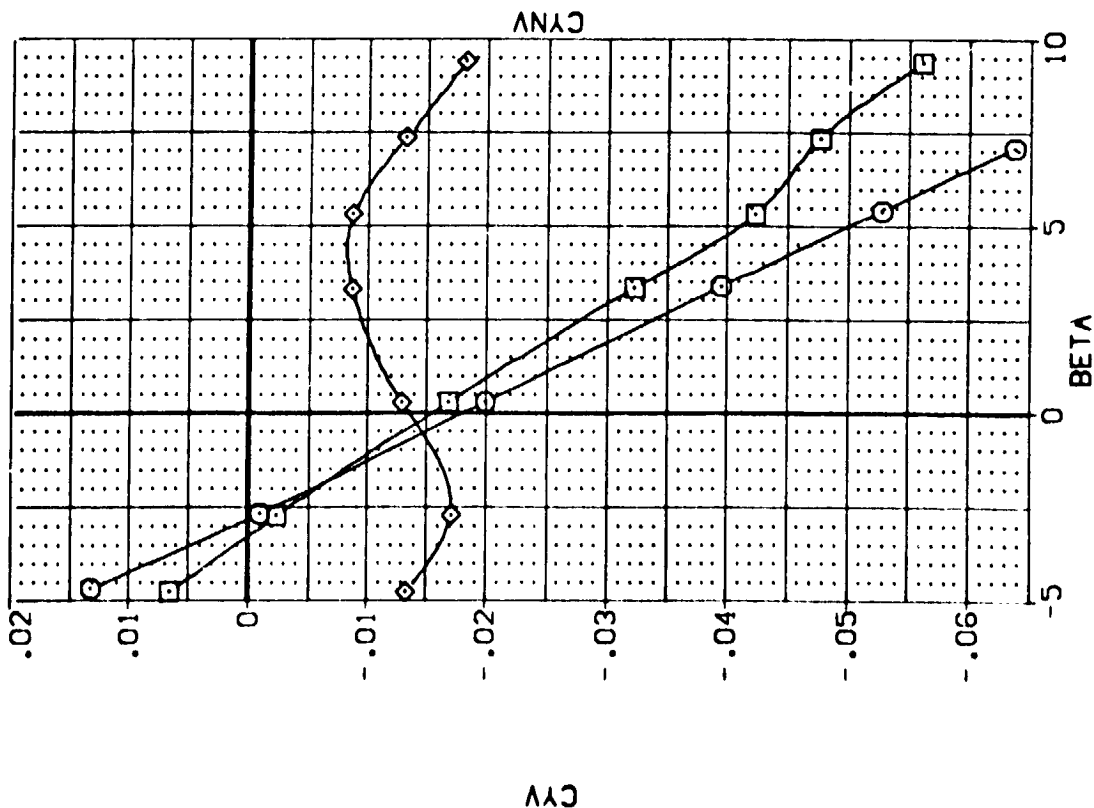


FIG. 38 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 25 DEGREES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOE LAP	SPOBRK	REFERENCE INFORMATION
(AEL051)	ARC 87-747 DA53C B C M F V1 V	0.000	-25.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(AEL052)	ARC 87-747 DA53C B C M F V1 V	10.000	-25.000	-11.700	25.000	LREF 14.2440 IN.
(AEL053)	ARC 87-747 DA53C B C M F V1 V	20.000	-25.000	-11.700	25.000	BREF 28.1000 IN.
						XMRP 32.3010 IN.
						YMRP 0.0000 IN.
						ZMRP 11.2500 IN.
						SCALE 0.0300

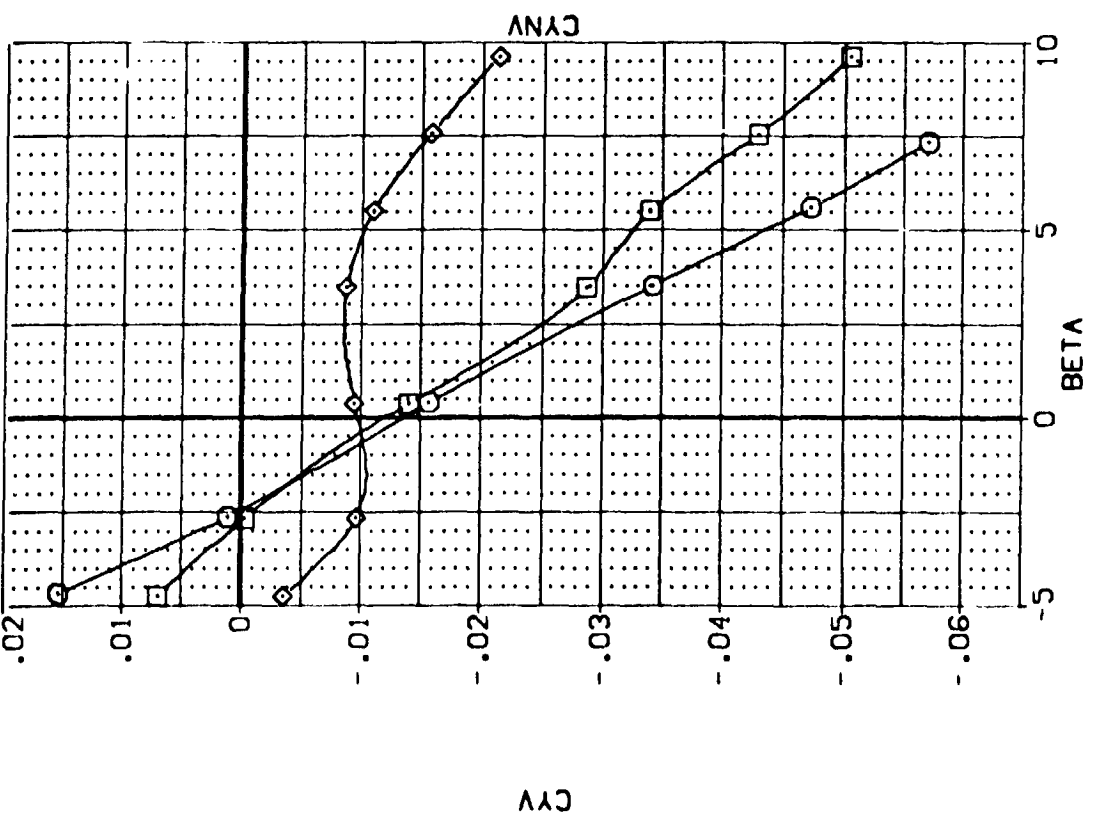


FIG. 38 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 25 DEGREES

(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

Symbol	Configuration	Description
□	ARC 87-747 QAS3C B C M F VI	V
◇	ARC 87-747 QAS3C B C M F VI	V
◇	ARC 87-747 QAS3C B C M F VI	V

ALPHA RUDDER BOFLAP SPEEDK

Alpha	Rudder	Boflap	Speedk
0.000	-25.000	-11.700	25.000
10.000	-25.000	-11.700	25.000
20.000	-25.000	-11.700	25.000

REFERENCE INFORMATION

Symbol	Reference Information
SREF	2.4210 SQ.FT.
LREF	14.2440 IN.
BREF	28.1004 IN.
XMRP	32.3010 IN.
YMRP	11.2500 IN.
ZMRP	0.0000 IN.
SCALE	0.0300

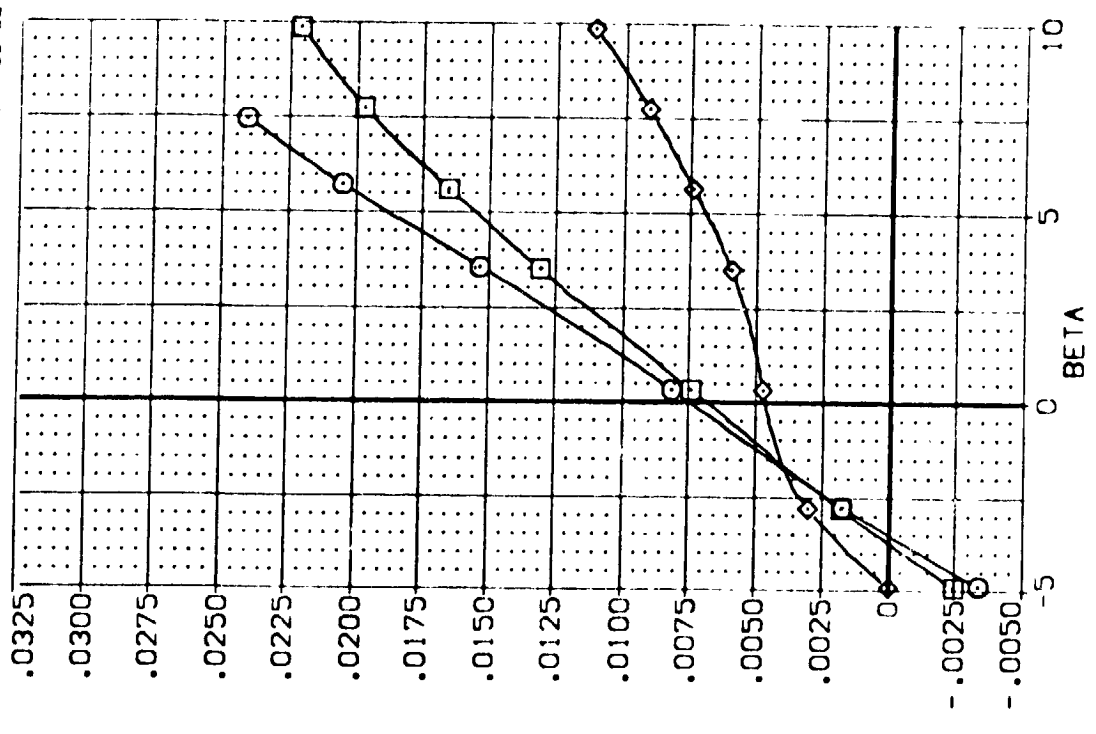
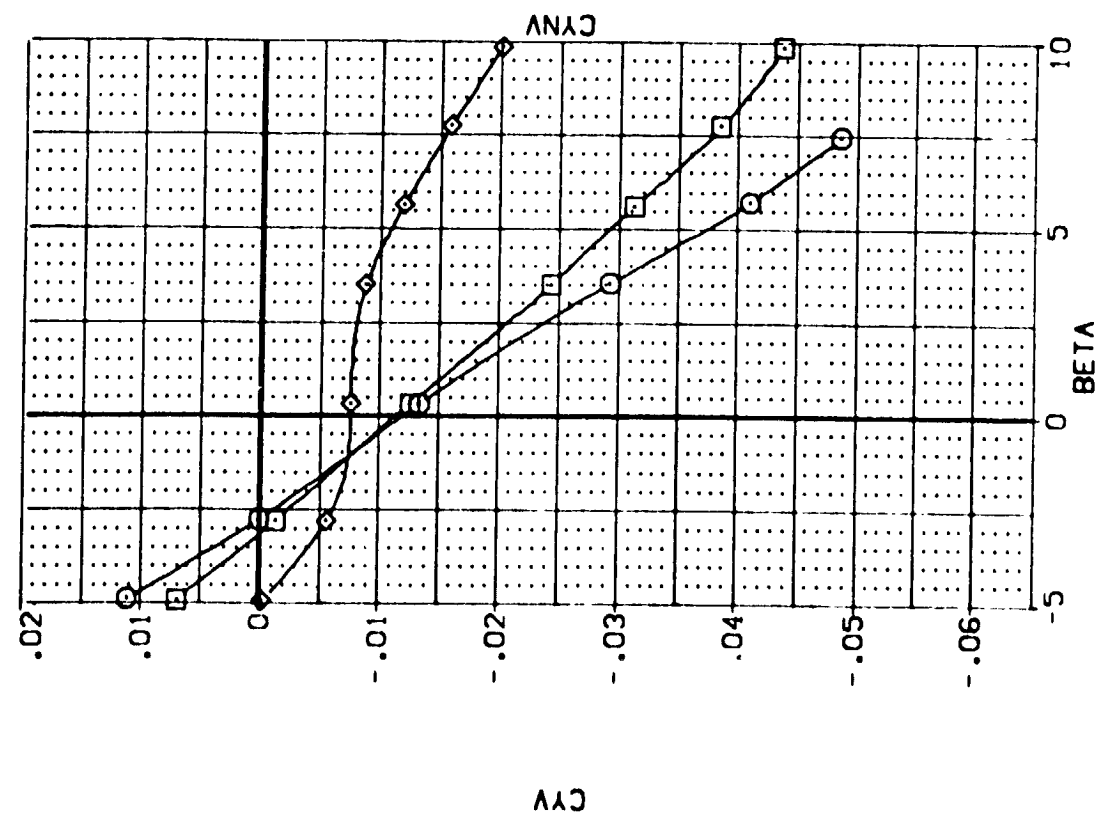


FIG. 38 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 25 DEGREES

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	NON- RN/L	NON- RN/L	NON- RN/L
ARC 87-747	QAS3C	B C M F V I V	NON- RN/L	NON- RN/L	NON- RN/L
ARC 87-747	QAS3C	B C M F V I V	NON- RN/L	NON- RN/L	NON- RN/L
ARC 87-747	QAS3C	B C M F V I V	NON- RN/L	NON- RN/L	NON- RN/L

ALPHA RUDDER BOFLAP SPOBRK

ALPHA	RUDDER	BOFLAP	SPOBRK
0.000	0.000	-11.700	55.000
10.000	0.000	-11.700	55.000
20.000	0.000	-11.700	55.000

REFERENCE INFORMATION

REFERENCE INFORMATION	2.4720	50.471
SREF	2.4720	50.471
LREF	14.2440	50.471
BREF	28.3010	50.471
YMRP	0.0000	50.471
ZMRP	11.2500	50.471
SCALE	0.3000	50.471

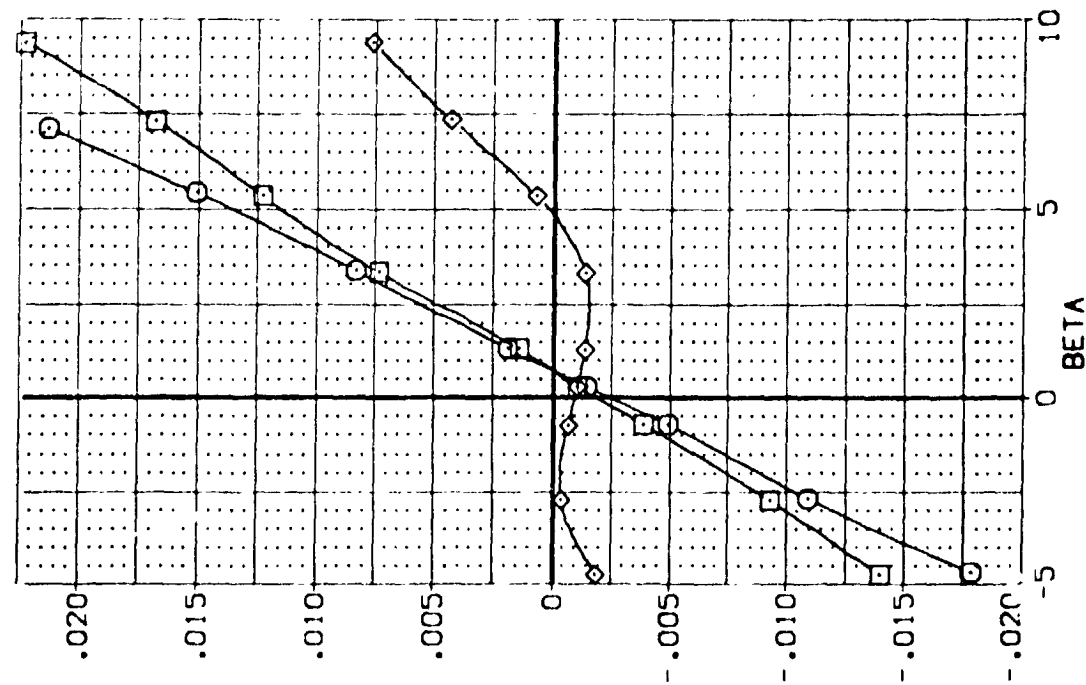
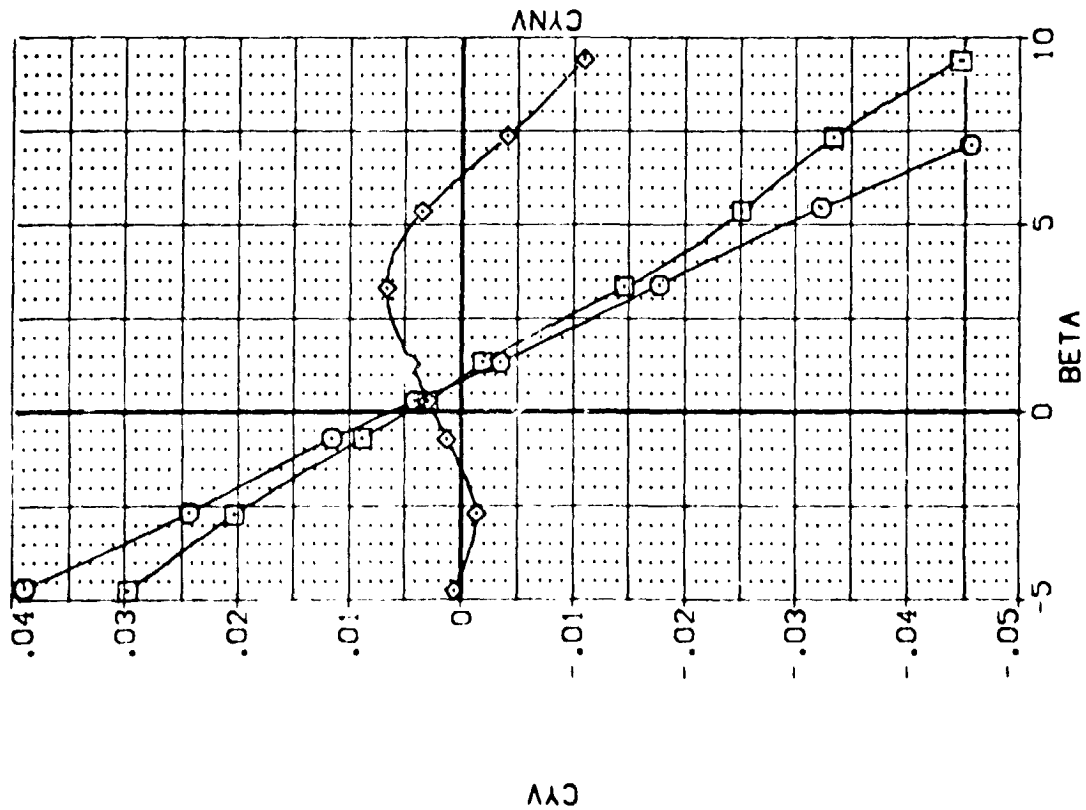


FIG. 39 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 55 DEGREES

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (AELO:2) Q ARC 87-747 DASSC B C M F VI V NON: RNVL  
 (AELO:3) Q ARC 87-747 DASSC B C M F VI V NON: RNVL  
 (AELO:4) Q ARC 87-747 DASSC B C M F VI V NON: RNVL

ALPHA RUDDER BOFLAP SPEEDBRK  
 .000 .000 -11.700 55.000  
 10.000 .000 -11.700 55.000  
 20.000 .000 -11.700 55.000

REFERENCE INFORMATION:  
 SREF 2.4210 SQ.F.  
 LREF 14.2440  
 BREF 28.1004  
 YMRP 32.3010  
 ZMRP .0000  
 ZMRP 11.2500  
 SCALE .0300

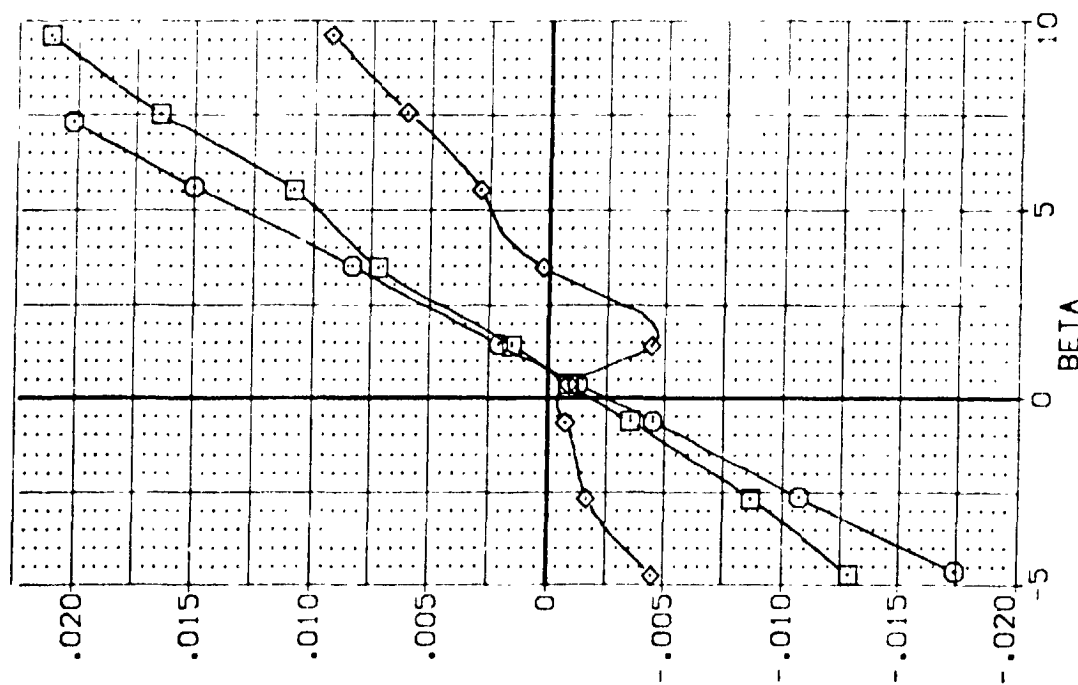
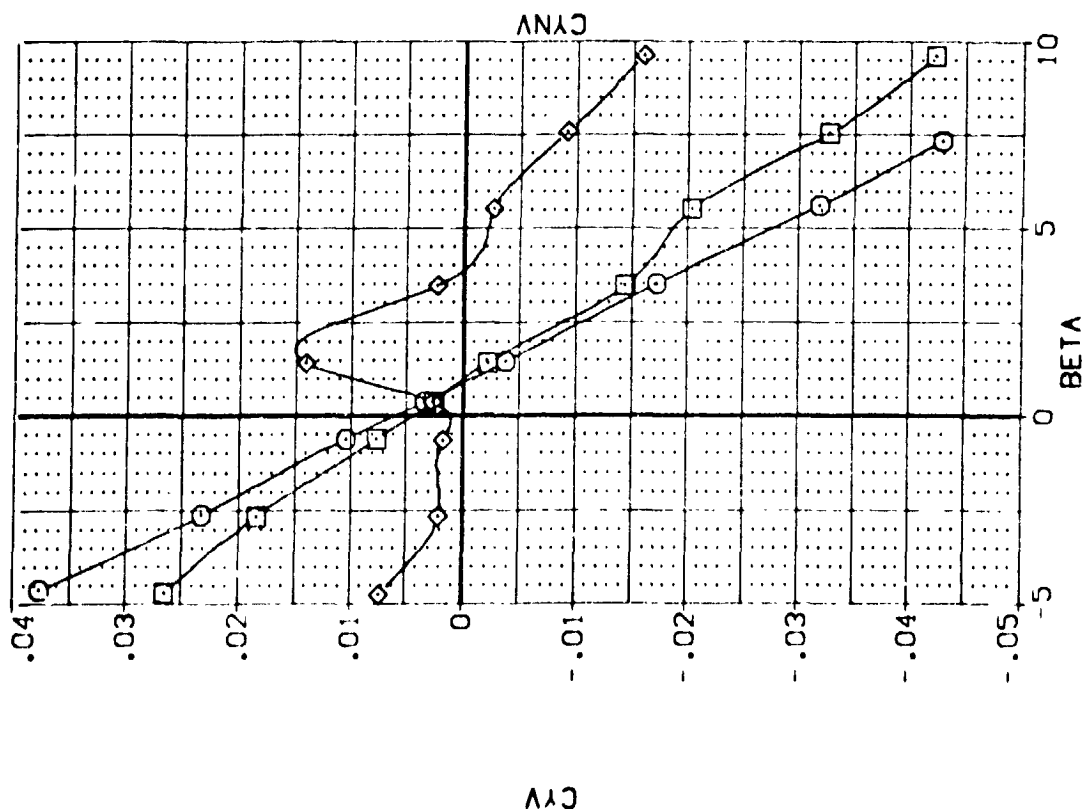


FIG. 39 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 55 DEGREES

(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDFLAP	SPOBRK	REFERENCE INFORMATION
(AEL012)	ARC 87-747 DASSC B C M F V1 V	.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(AEL013)	ARC 87-747 DASSC B C M F V1 V	10.000	.000	-11.700	55.000	LREF 14.2440
(AEL014)	ARC 87-747 DASSC B C M F V1 V	20.000	.000	-11.700	55.000	BREF 28.1004
						YMRP 32.3010
						ZMRP .0000
						SCALE 11.2500
						SCALE .0300

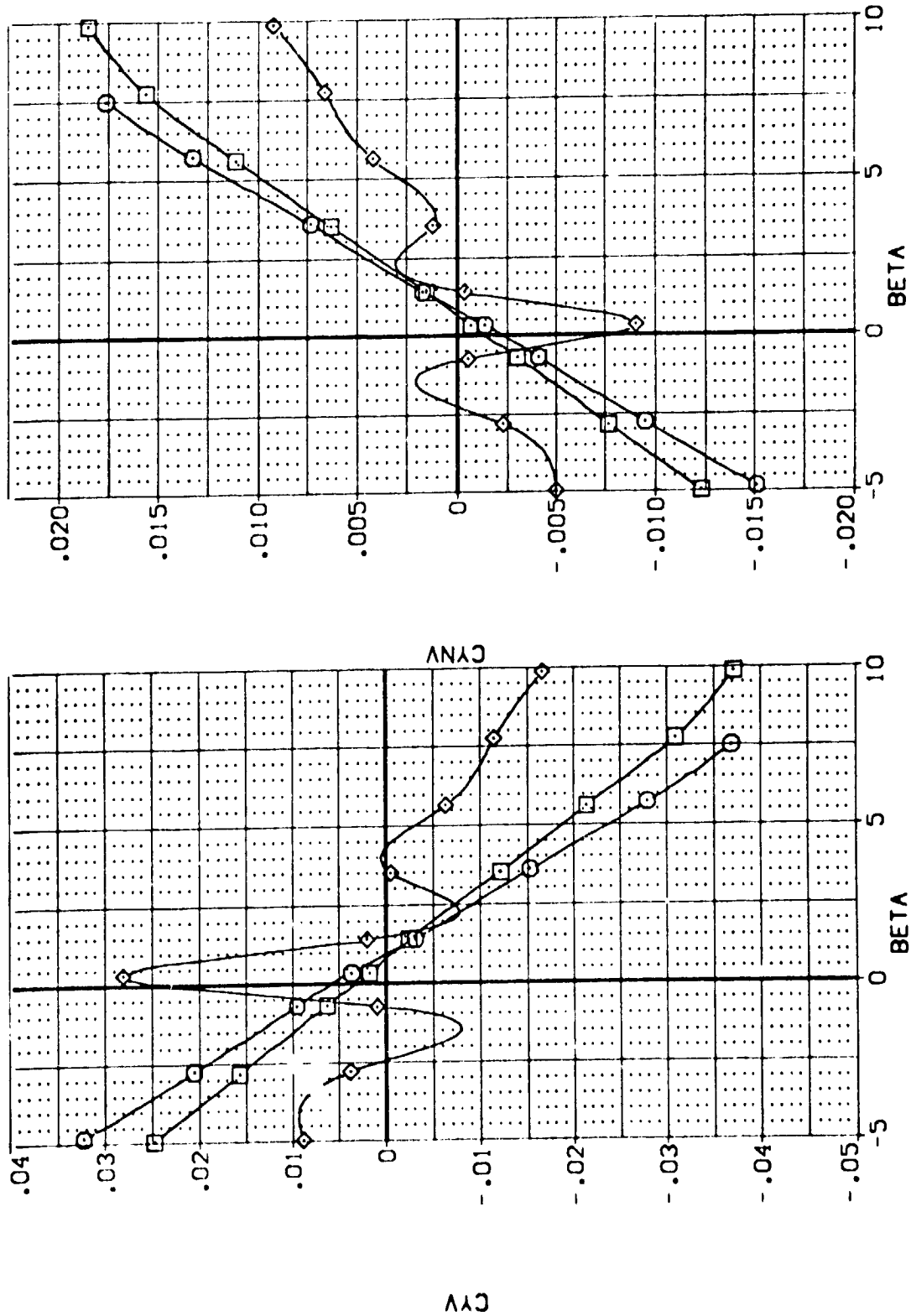


FIG. 39 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 55 DEGREES

(CJ)MAC+ = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

{AELO028}    ARC 87-747 BASEC B C M F V1 V    NOM: RNVL

{AELO030}    ARC 87-747 BASEC B C M F V1 V    NOM: RNVL

{AELO031}    ARC 87-747 BASEC B C M F V1 V    NOM: RNVL

ALPHA    RUDDER    BDF LAP    SPOBRK

0.000    -10.000    -11.700    55.000

10.000    -10.000    -11.700    55.000

20.000    -10.000    -11.700    55.000

REFERENCE INFORMATION

SREF    2.4210    SQ.FT.

LREF    14.2440    SQ.FT.

BREF    78.1004    SQ.FT.

XMRP    32.3010    IN.

YMRP    0.0000    IN.

ZMRP    11.2500    IN.

SCALE    0.0300    IN.

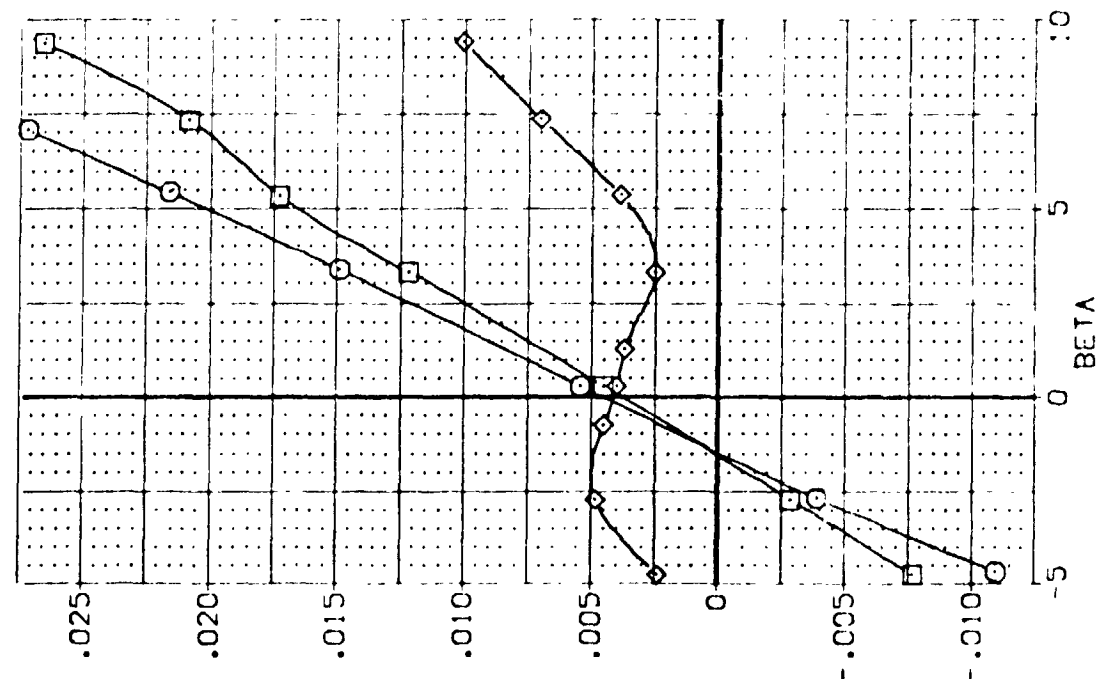
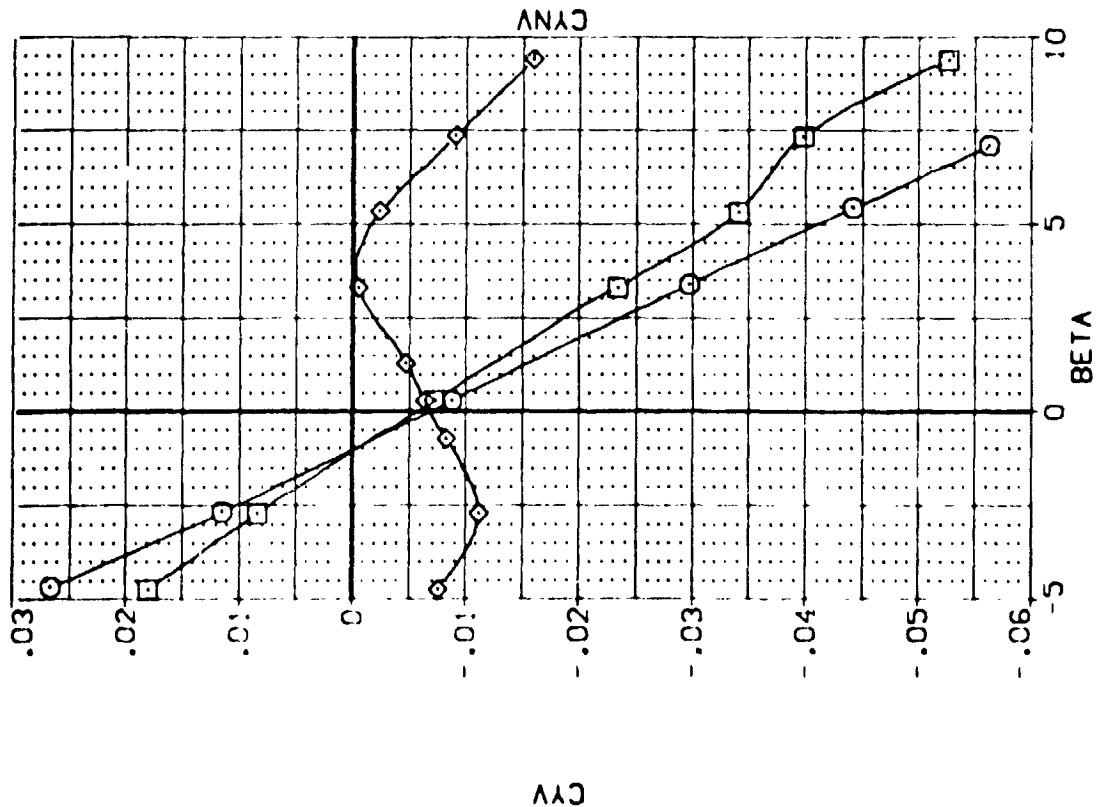


FIG. 39 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 55 DEGREES

CADMAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	Y	NOT	RVNL
ARC 87-747	CAS3C B C M F V	V	NOT	RVNL
ARC 87-747	CAS3C B C M F V	V	NOT	RVNL
ARC 87-747	CAS3C B C M F V	V	NOT	RVNL

ALPHA	RUDDER	BOFLAP	SPOBRK
.000	-10.000	-11.700	55.000
10.000	-10.000	-11.700	55.000
20.000	-10.000	-11.700	55.000

REFERENCE INFORMATION	SCALE
SREF 2.4210	50.000
LREF 14.2440	55.000
BREF 28.1000	55.000
YMRP 32.3010	55.000
ZMRP 11.2500	55.000
SCALE	55.000

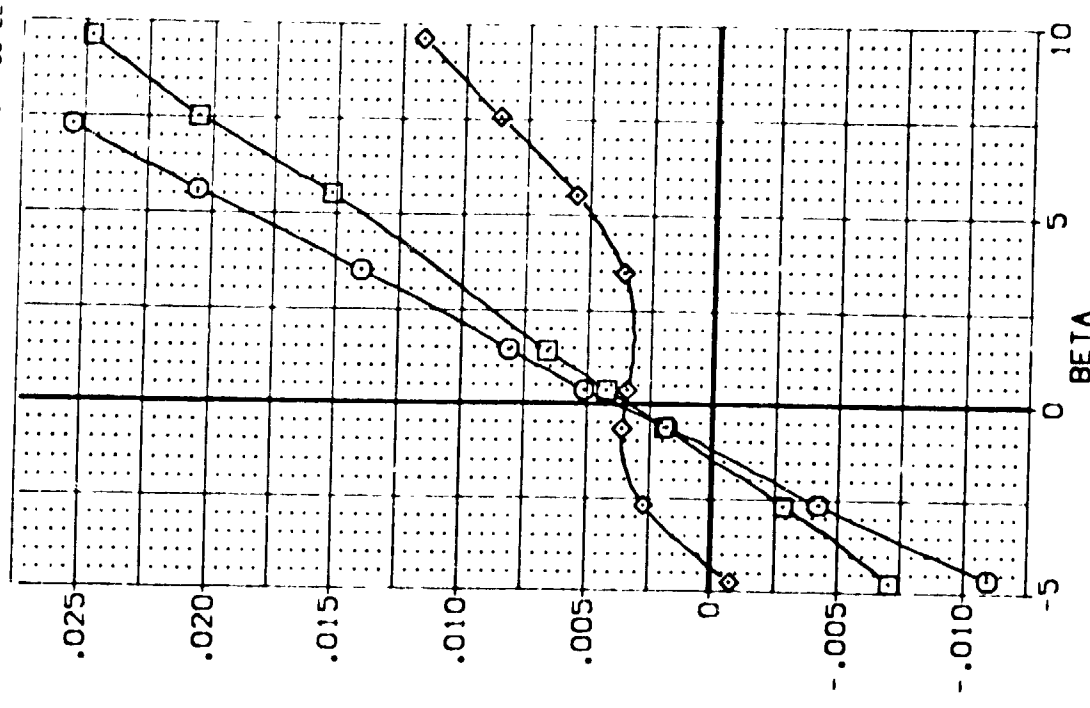
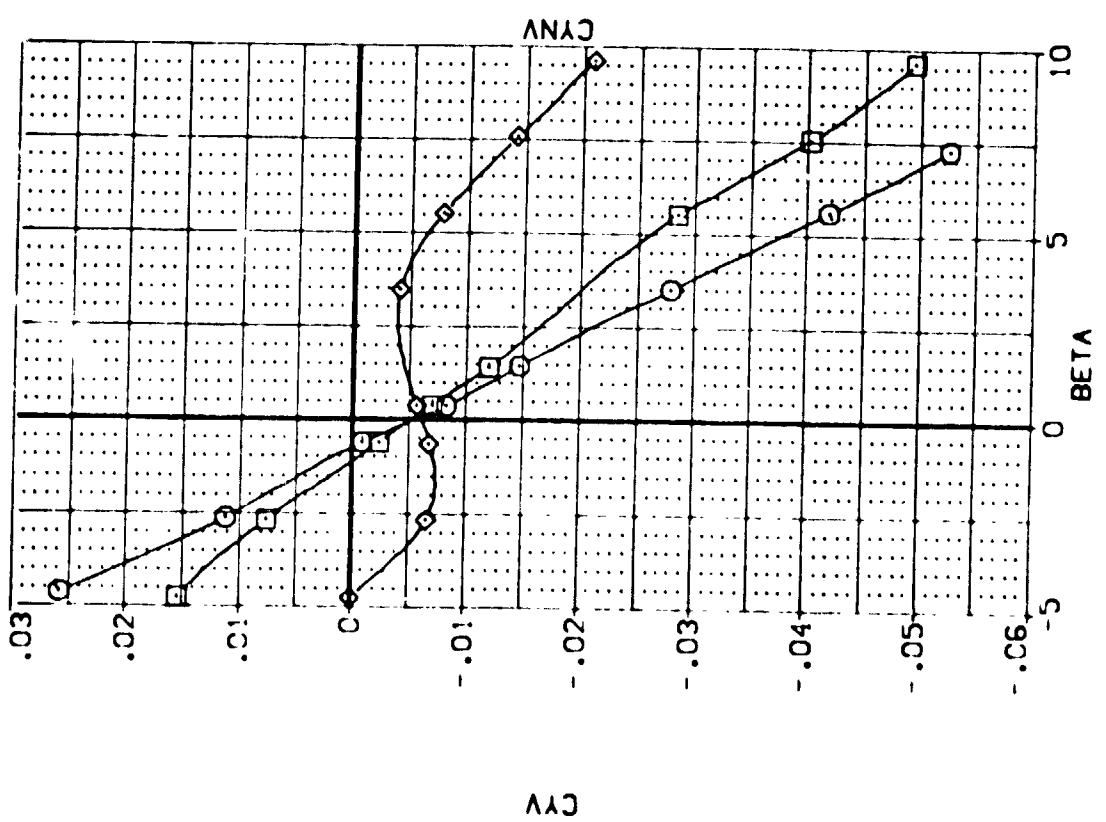


FIG. 39 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 55 DEGREES  
 (B)MACH = 3.00



DATA SET SYMBOL CONFIGURATION DESCRIPTION

	ARC 87-747	BASIC B	C	M	F	V	NOM	RV/L
[AELO29]								
[AELO30]								
[AELO31]								

ALPHA RUDDER BDF LAP SPOBRN

	ALPHA	RUDDER	BDF LAP	SPOBRN
10.000	-10.000	-11.700	55.000	
10.000	-10.000	-11.700	55.000	
20.000	-10.000	-11.700	55.000	

REFERENCE INFORMATION

	SREF	LREF	BREF	XMRP	YMRP	ZMRP	SCALE
2.4210	14.2440	28.1001	32.3010	.0000	.0000	.0000	11.2500
50.000	55.000	55.000	55.000	55.000	55.000	55.000	55.000

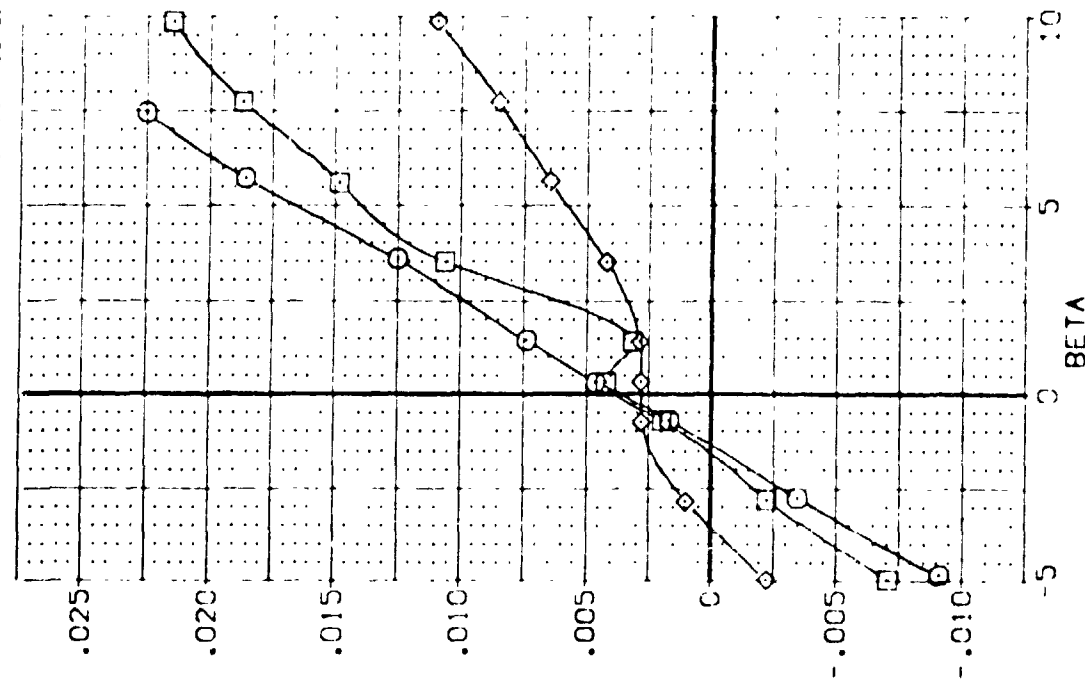
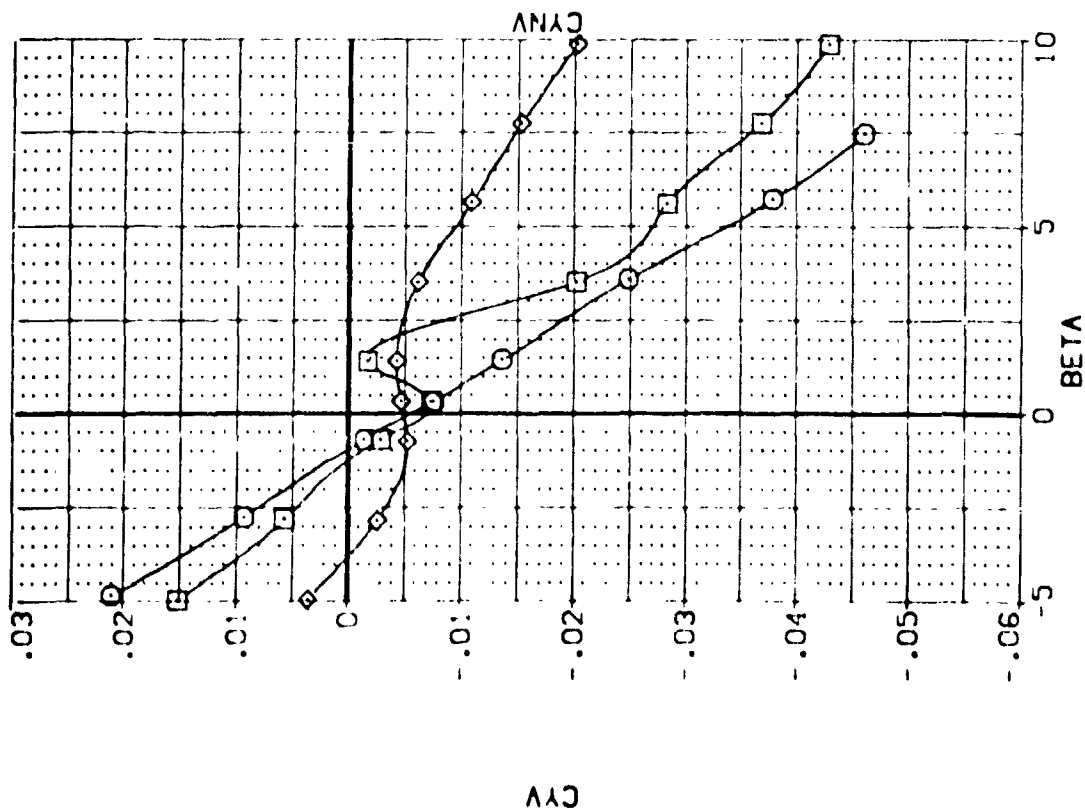


FIG. 39 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 55 DEGREES

(C)MACH = 3.50

ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
.000	-20.000	-11.700	SPK	2.4210
10.000	-20.000	-11.700	SPF	14.2445
20.000	-20.000	-11.700	SPF	28.1004
			SPR	37.3010
			SPR	11.0000
			SPR	11.2000
			SCALE	SCALE

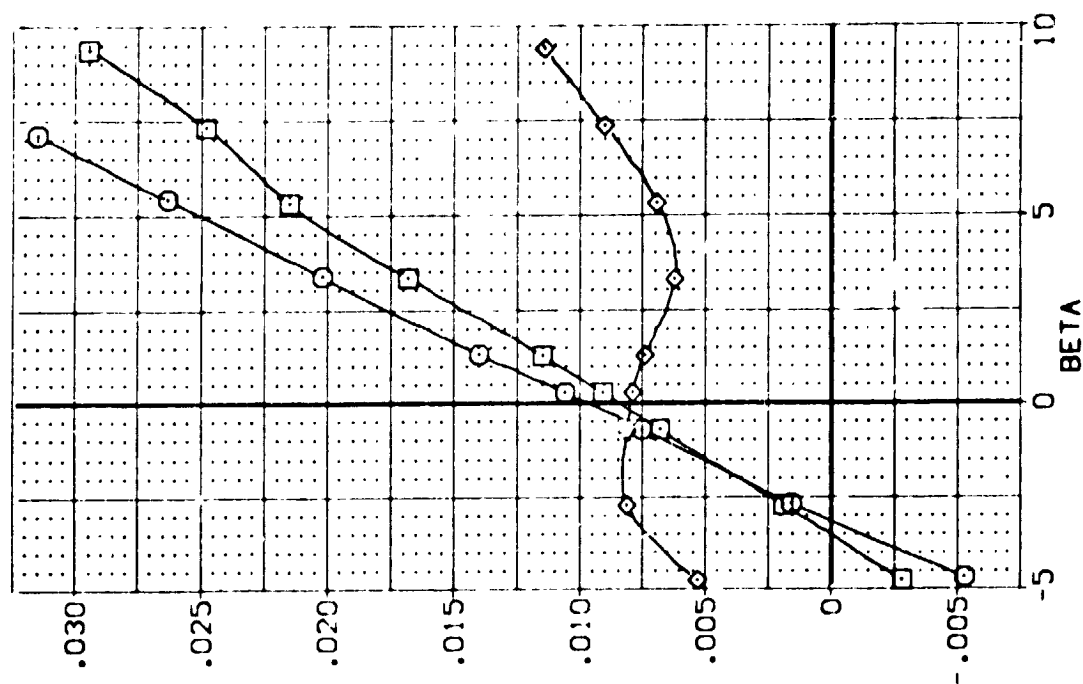
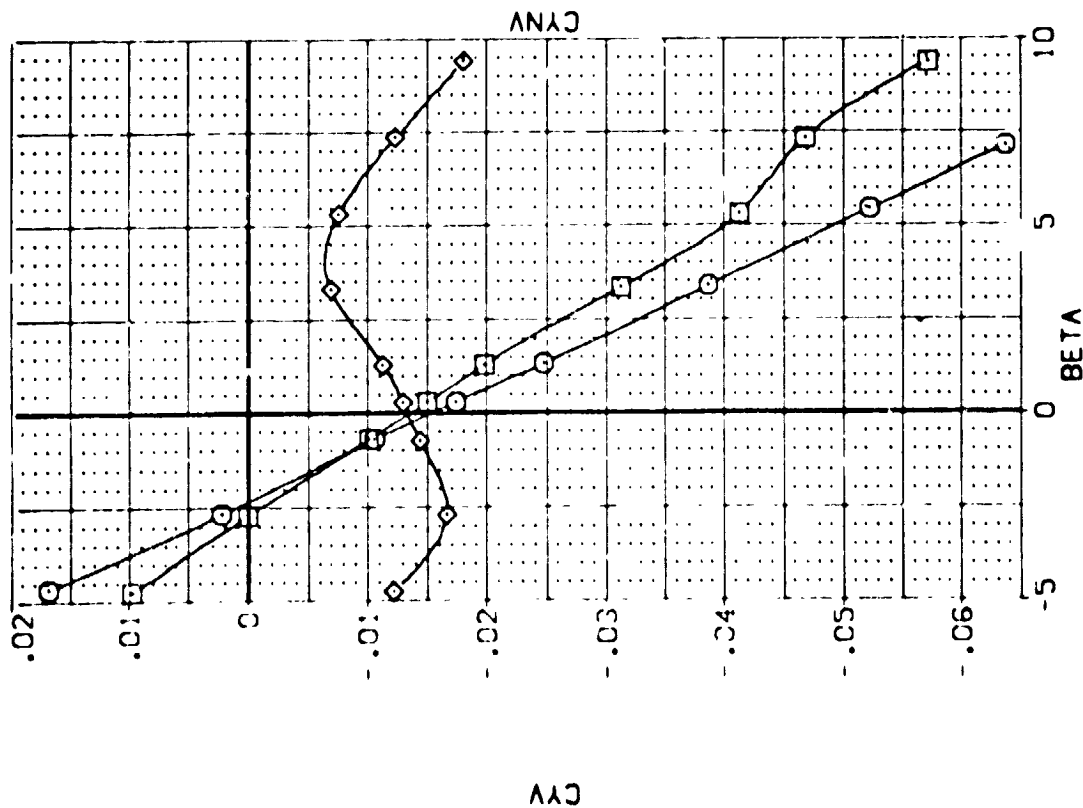


FIG. 39 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 55 DEGREES

$$(A) \sim AC = 2.50$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[AELO32]	ARC 87-747 OAS3C B C M F VI V
[AELO33]	ARC 87-747 OAS3C B C M F VI V
[AELO34]	ARC 87-747 OAS3C B C M F VI V

NON: RNVL  
NON: RNVL  
NON: RNVL

ALPHA R' LER R' LER AP SPOBRK

ALPHA	R' LER	R' LER	AP	SPOBRK
0.000	-20.000	-11.700	46.000	46.000
10.000	-20.000	-11.700	46.000	46.000
20.000	-20.000	-11.700	46.000	46.000

REFERENCE INFORMATION

REFERENCE INFORMATION
SAFREF 2.4210 SQ.FT.
LRREF 14.2440 IN.
BRREF 28.1004 IN.
YMRP 32.9510 IN.
ZMRP 11.2500 IN.
SCALE 0.300

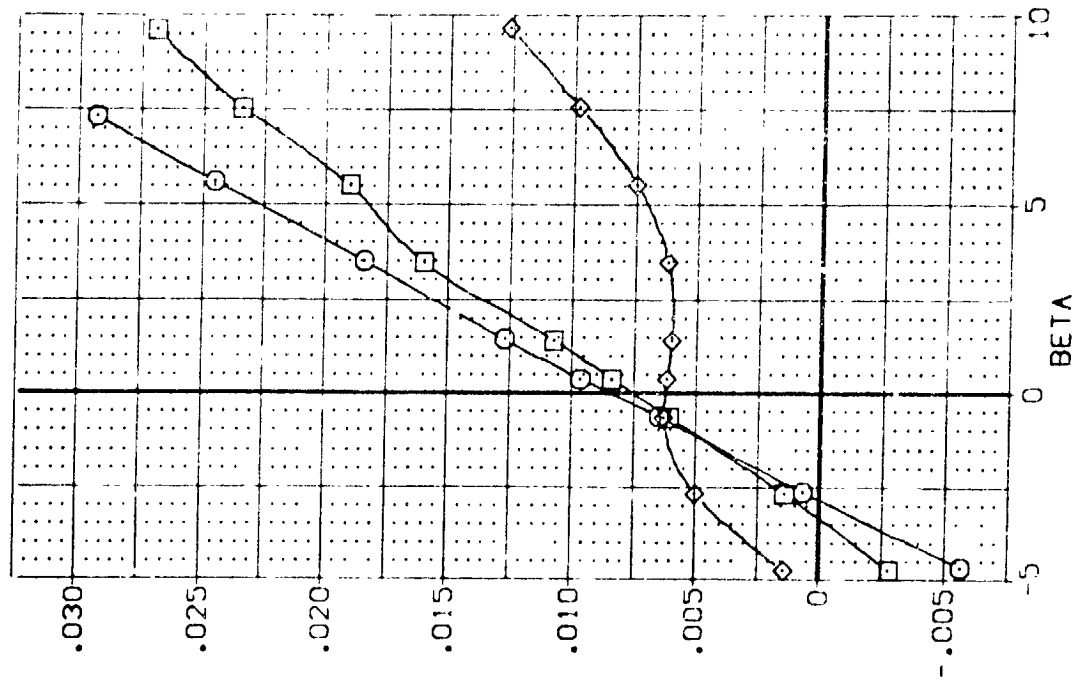
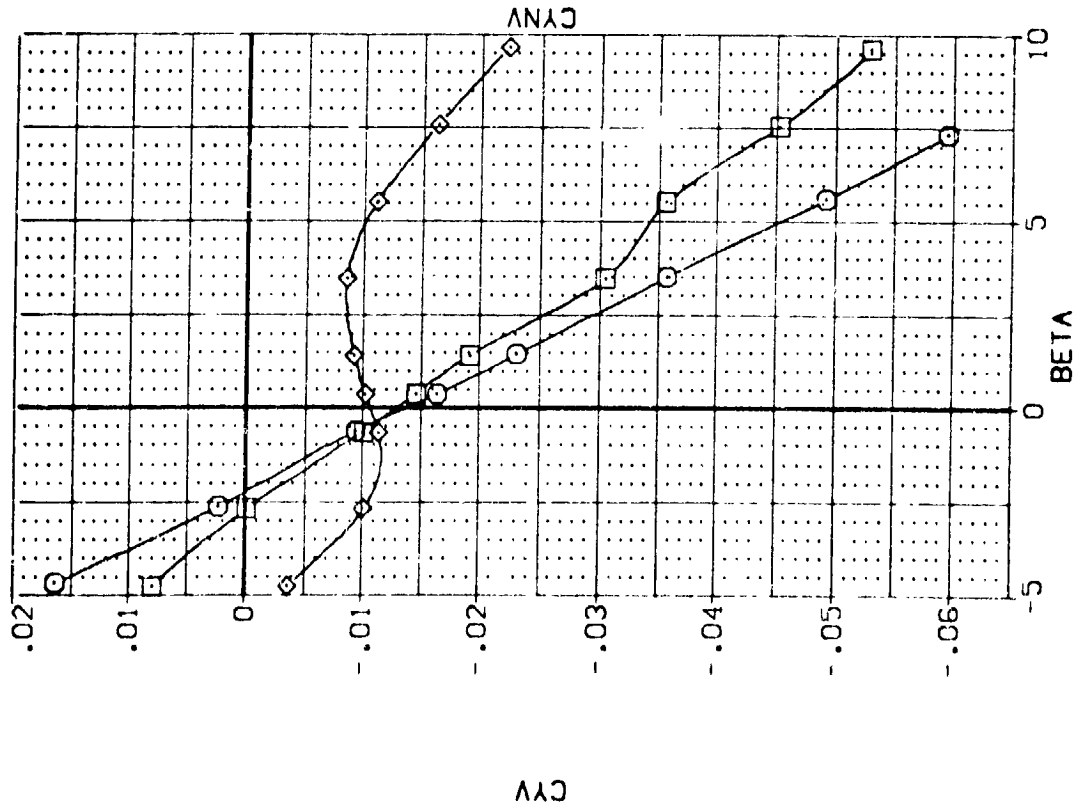


FIG. 39 VERTICAL TAIL LOADS VERSUS SIDESLIP, SPEEDBRAKE = 55 DEGREES  
(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON. RVNL	NON. RVNL
[AELC32]	ARC 87-747 CAS3C B C M F VI V	NON. RVNL	NON. RVNL
[AF.C33]	ARC 87-747 CAS3C B C M F VI V	NON. RVNL	NON. RVNL
[AELC34]	ARC 87-747 CAS3C B C M F VI V	NON. RVNL	NON. RVNL

ALPHA RUDDER BOFLAP SPEEDR

ALPHA	RUDDER	BOFLAP	SPEEDR
.000	-20.000	-11.700	46.000
10.000	-20.000	-11.700	46.000
20.000	-20.000	-11.700	46.000

REFERENCE INFORMATION

SRF	2.421C	SC.FT.
14.244C <td>14.244C <td>14.244C </td></td>	14.244C <td>14.244C </td>	14.244C
32.301C <td>32.301C <td>32.301C </td></td>	32.301C <td>32.301C </td>	32.301C
11.250C <td>11.250C <td>11.250C </td></td>	11.250C <td>11.250C </td>	11.250C
SCALE	SCALE	SCALE

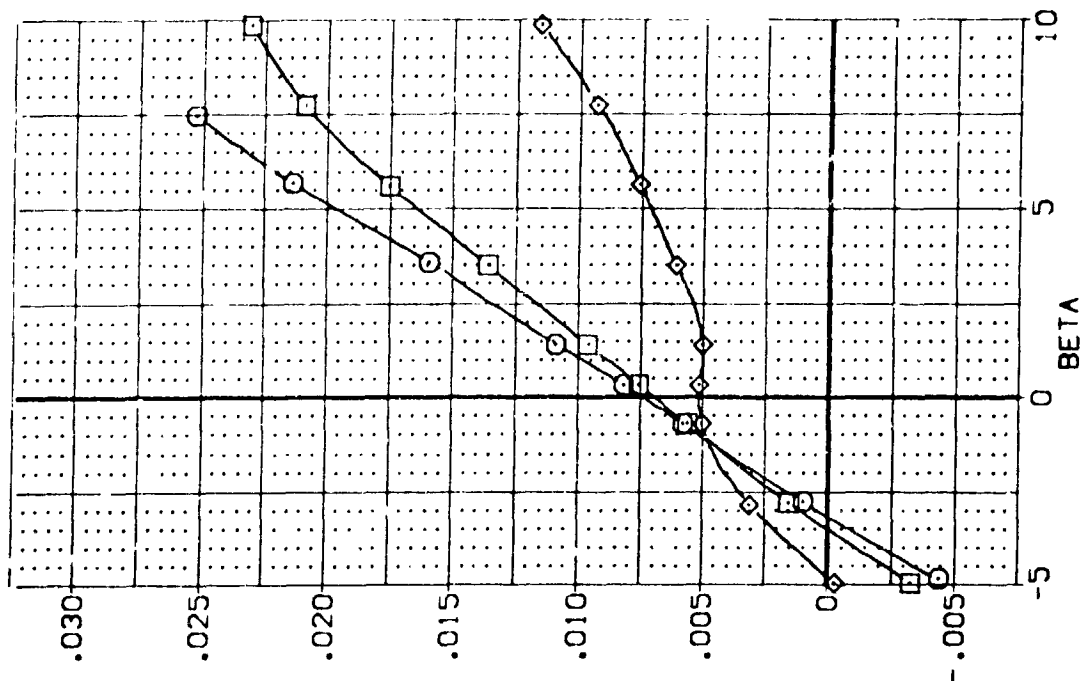
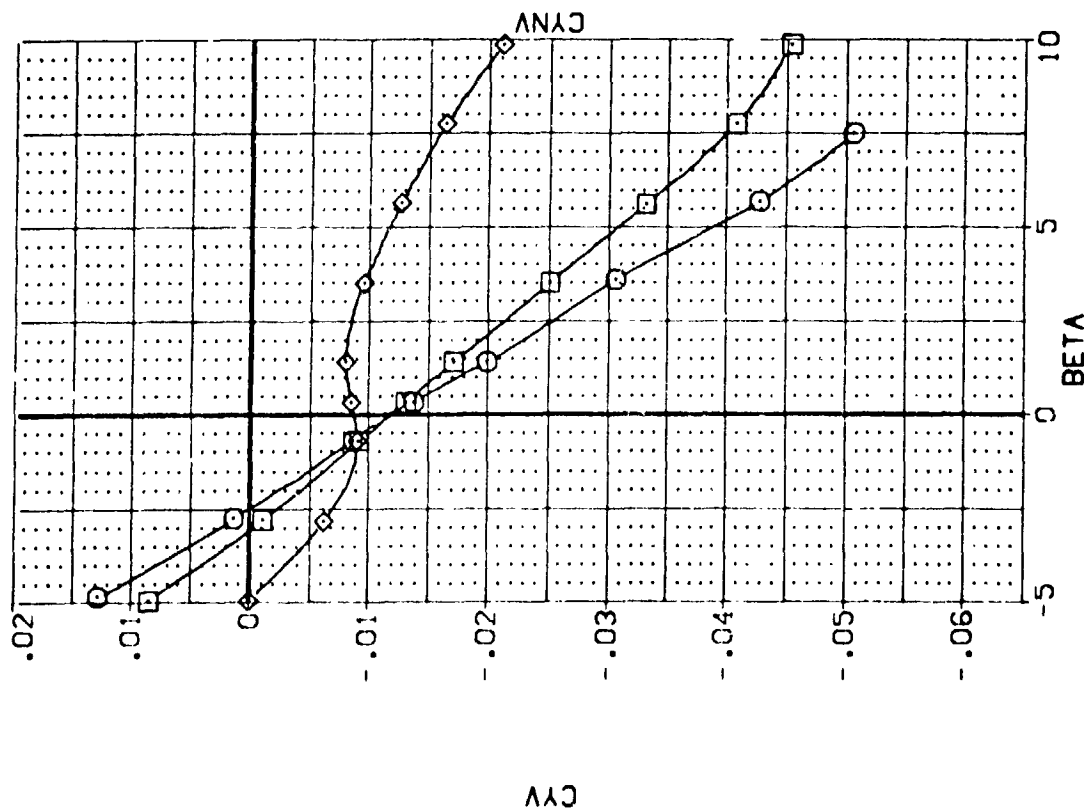


FIG. 39 VERTICAL TAIL LOADS VERSUS SIDESLIP. SPEEDBRAKE = 55 DEGREES

(C)MAC = 3.50

SYMBOL  
 ○ □ ◇

ALPHA  
 .000  
 10.000  
 20.000

MACH  
 ELEVON  
 BOFLAP  
 ELEV-L

PARAMETRIC VALUES  
 2.500  
 .000  
 -11.700  
 .000

BETA  
 AILRON  
 SPEEDBRK  
 ELEV-R

.000  
 .000  
 25.000  
 .000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.2140 IN.  
 BREF 28.1004 IN.  
 AMPO 32.3010 IN.  
 YMGD .0000 IN.  
 ZMGD 11.2500 IN.  
 SCALE .0300

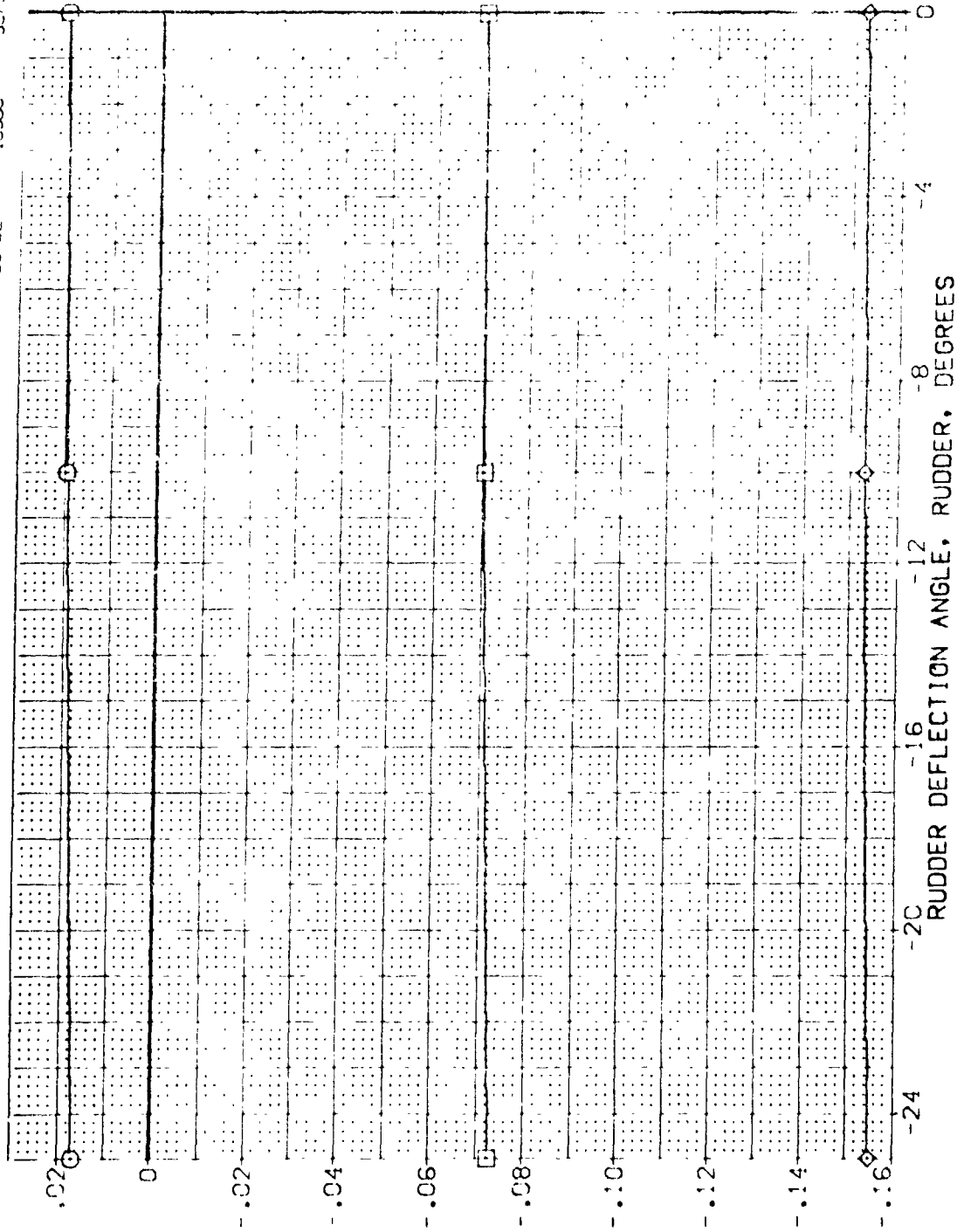


FIG. 40 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMOMENT, SPEEDBRAKE = 25 DEG

SYMBOL

PARAMETRIC VALUES

ALPHA .000 MACH 3.000 BETA .000  
 10.000 ELEVON .000 AILRON .000  
 20.000 EOF LAP -11.700 SPEEDRK 25.000  
 ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
 SPREF 2.4210 SQ.FT.  
 LRPF 14.244C  
 BRPF 28.1004  
 AMRP 32.3010  
 TMRP .0000  
 ZMRP 11.2500  
 SCALE .0300

TOTAL ELEVON HINGE MOMENT COEFFICIENT, CHET

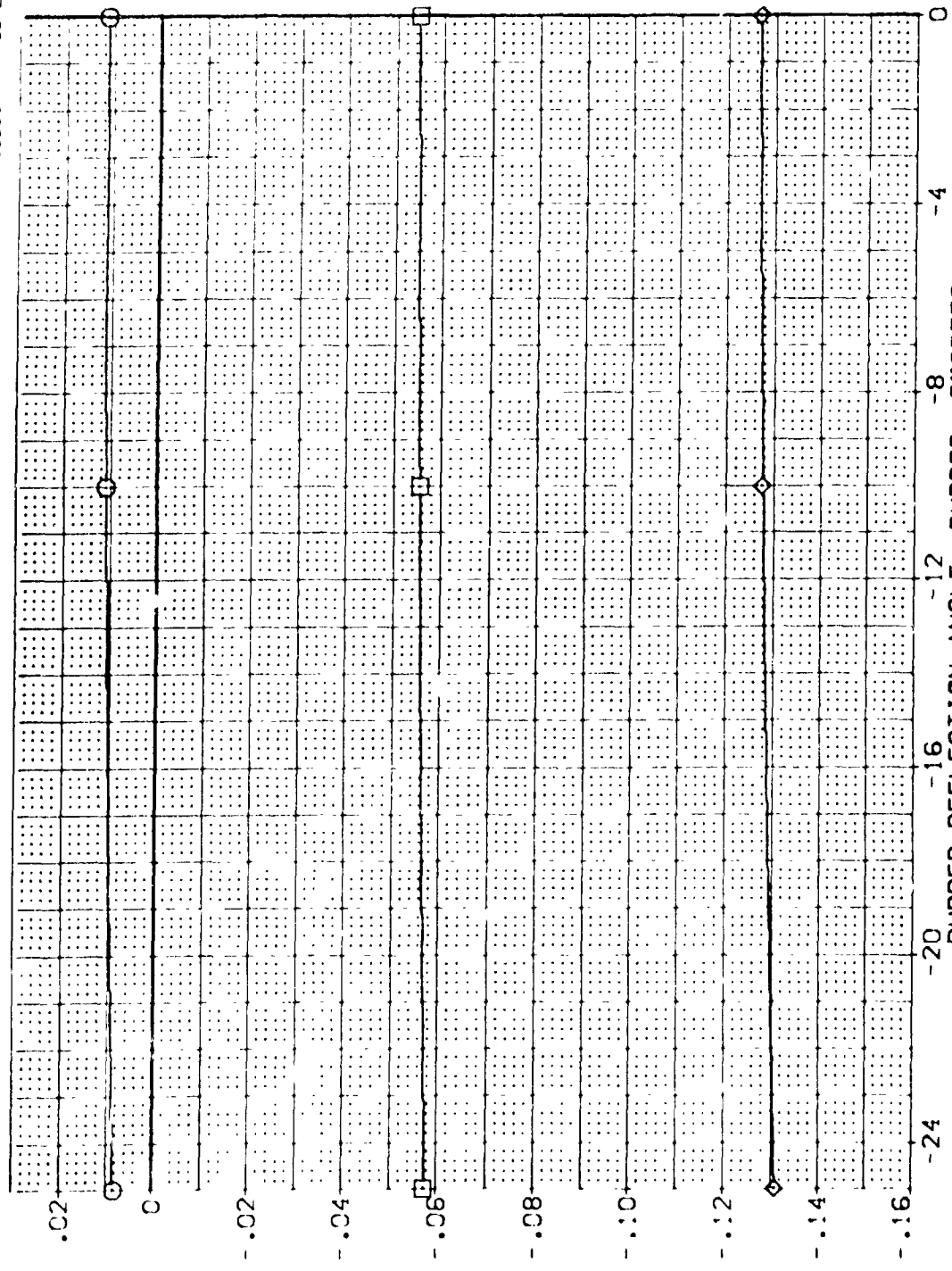


FIG. 40 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMOMENT, SPEEDBRAKE = 25 DEG

(150733)

**synd**

001010

### PARAMETRIC VALUES

MACH	.000	3,500	BETA	.000
ELEVON	10,000	.000	AIRLON	.000
BOFLAP	20,000	-11,700	SPOBRK	25,000
ELEV-L		.000	ELEV-R	.000

REFERENCE INFORMATION	
SREF	2.4210 SQ. FT.
DEP	14.2440 IN.
BRG	28.1004 IN.
XMRP	32.3610 IN.
YMRP	3.0000 IN.
ZMRP	11.2500 IN.
SCALE	1:300 SCALE

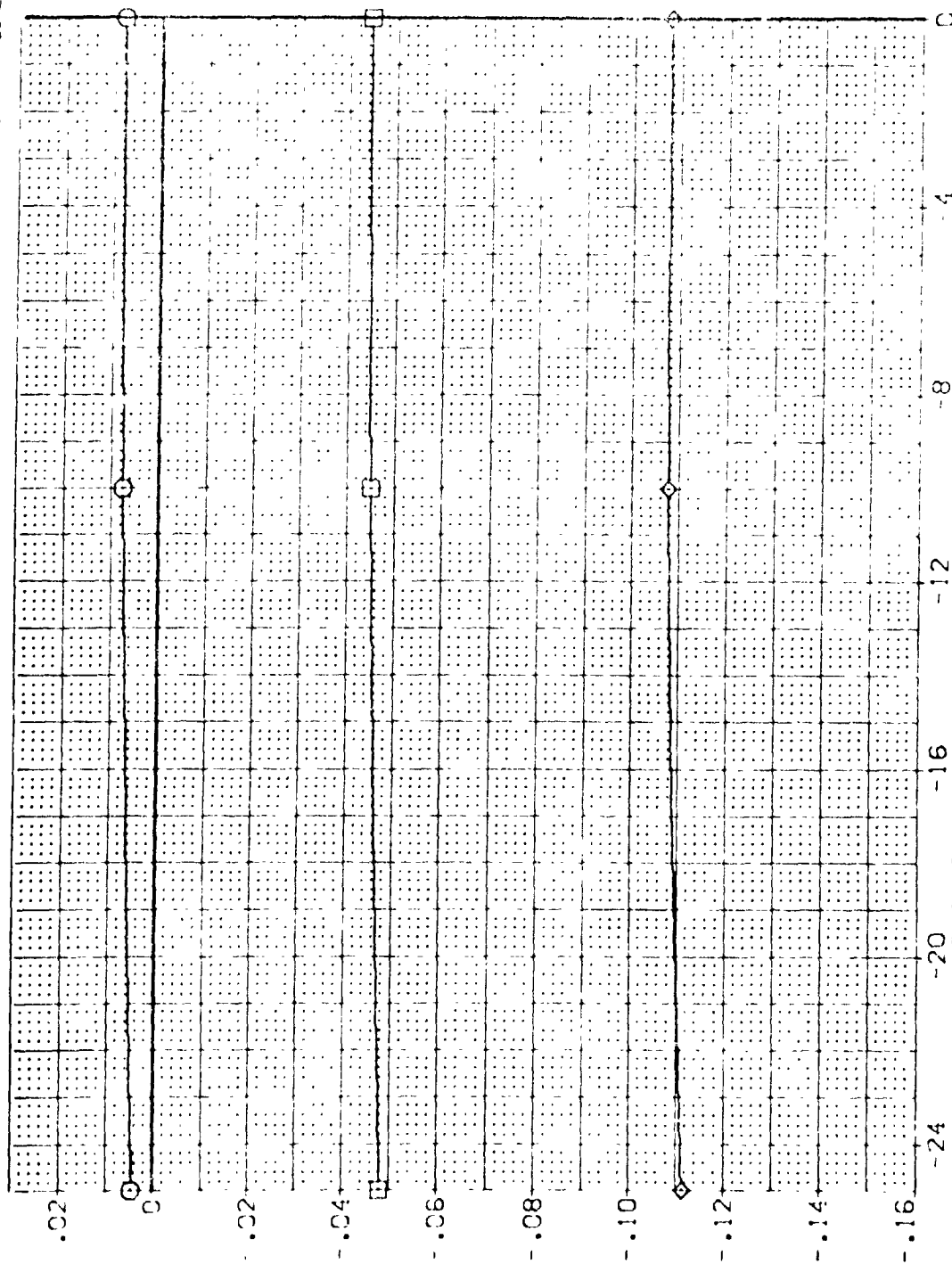


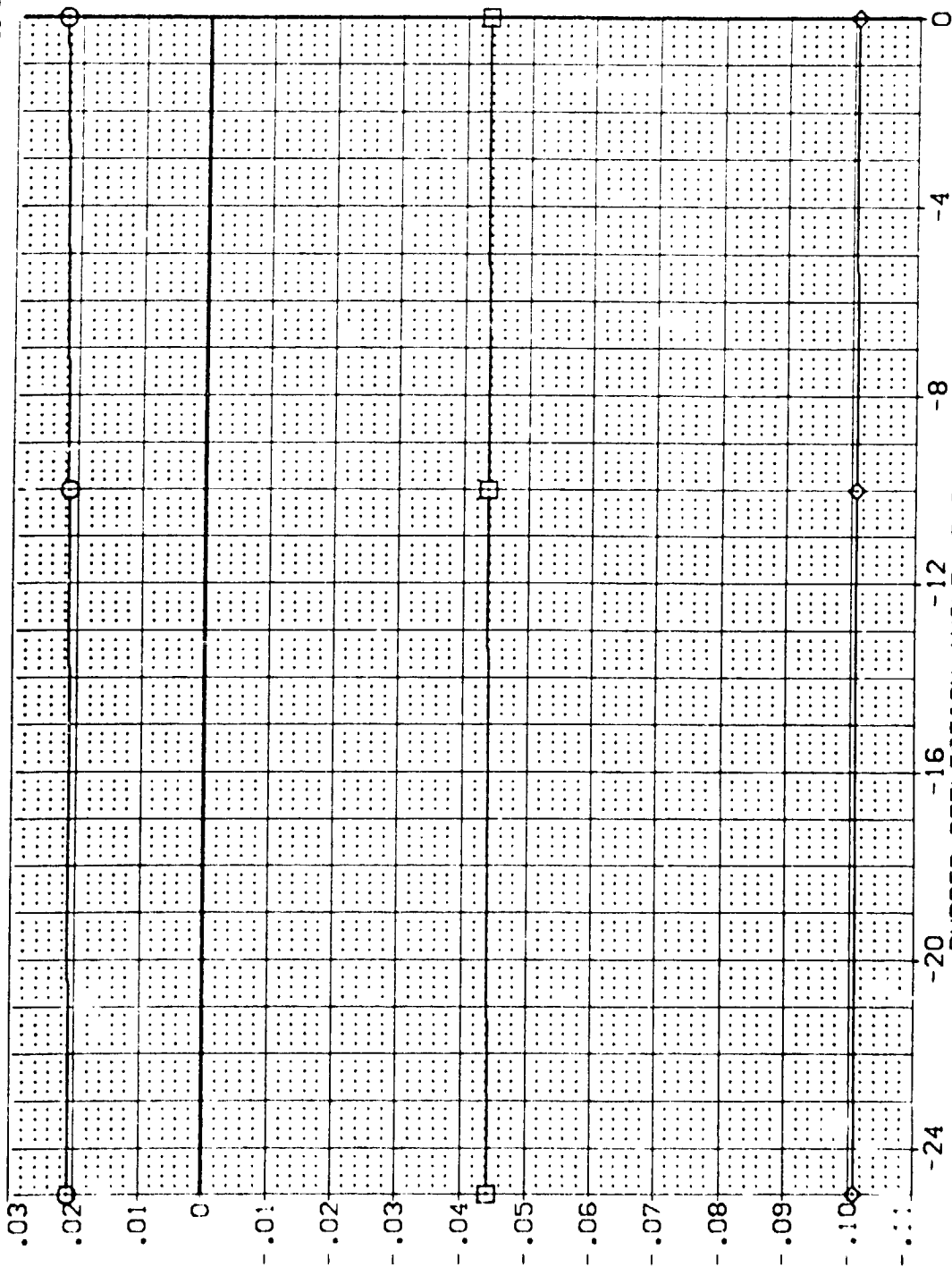
FIG. 40 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMOMENT, SPEEDBRAKE = 25 DEG

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL051)

SYMBOL  
 O  
 ◇

PARAMETRIC VALUES  
 MACH 2.500 BETA .000  
 ELEVON .000 AILRON .000  
 BOFLAP -11.700 SPOBRK 25.000  
 ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
 SPREF 2.4210 SQ.FT.  
 LREF 14.2440 IN.  
 BRPF 28.1004 IN.  
 XMRP 32.3010 IN.  
 YMRP .0000 IN.  
 ZMRP 11.2500 IN.  
 SCALE .0300



INBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHEI

FIG. 40 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMOMENT, SPEEDBRAKE = 25 DEG



ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EELO5!)

SYMBOL

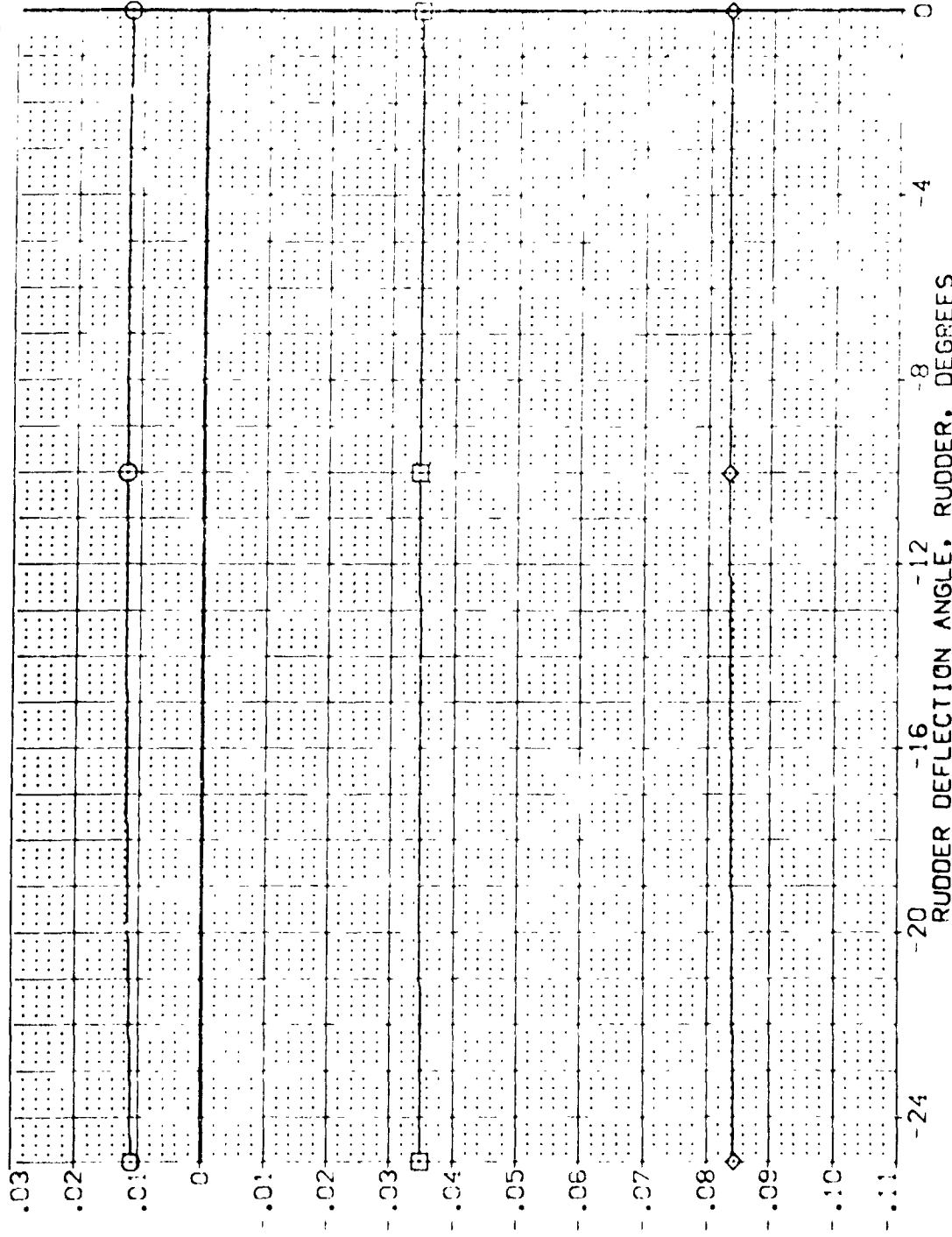
ALPHA  
.000  
10.000  
20.000

MACH  
ELEVON  
BDF LAP  
ELEV-L

PARAMETRIC VALUES  
3.000 BETA  
.000 ATLRON  
-11.700 SPEEDRK  
.000 ELEV-R

.000  
.000  
25.000  
.000

REFERENCE INFORMATION  
SREF 2.421C  
LREF 14.244C  
BREF 28.100C  
XMPD 32.3C  
YMPD .000C  
ZMPD .000C  
SCALE .0300



INBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHEI

FIG. 40 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMENT, SPEEDBRAKE = 25 DEG

A C 87-747 0A53C B C M F W1 V NOM. RN/L (EE1051)

SYMBOL  
 ○  
 ◇

AL VA  
 .000 MACH  
 10.000 ELEVON  
 20.000 ELEVON  
 3.500 BETA  
 .000 AILRON  
 .000 SPDGRK  
 -11.700 ELEV-R  
 .000 ELEV-R

REFERENCE INFORMATION  
 SPREF 2.4210 SQ.F.T.  
 LBREF 14.244C  
 BRFF 28.1004  
 XMRP 32.3010  
 YMRP .0000  
 ZMRP .0000  
 SCALE 11.2500

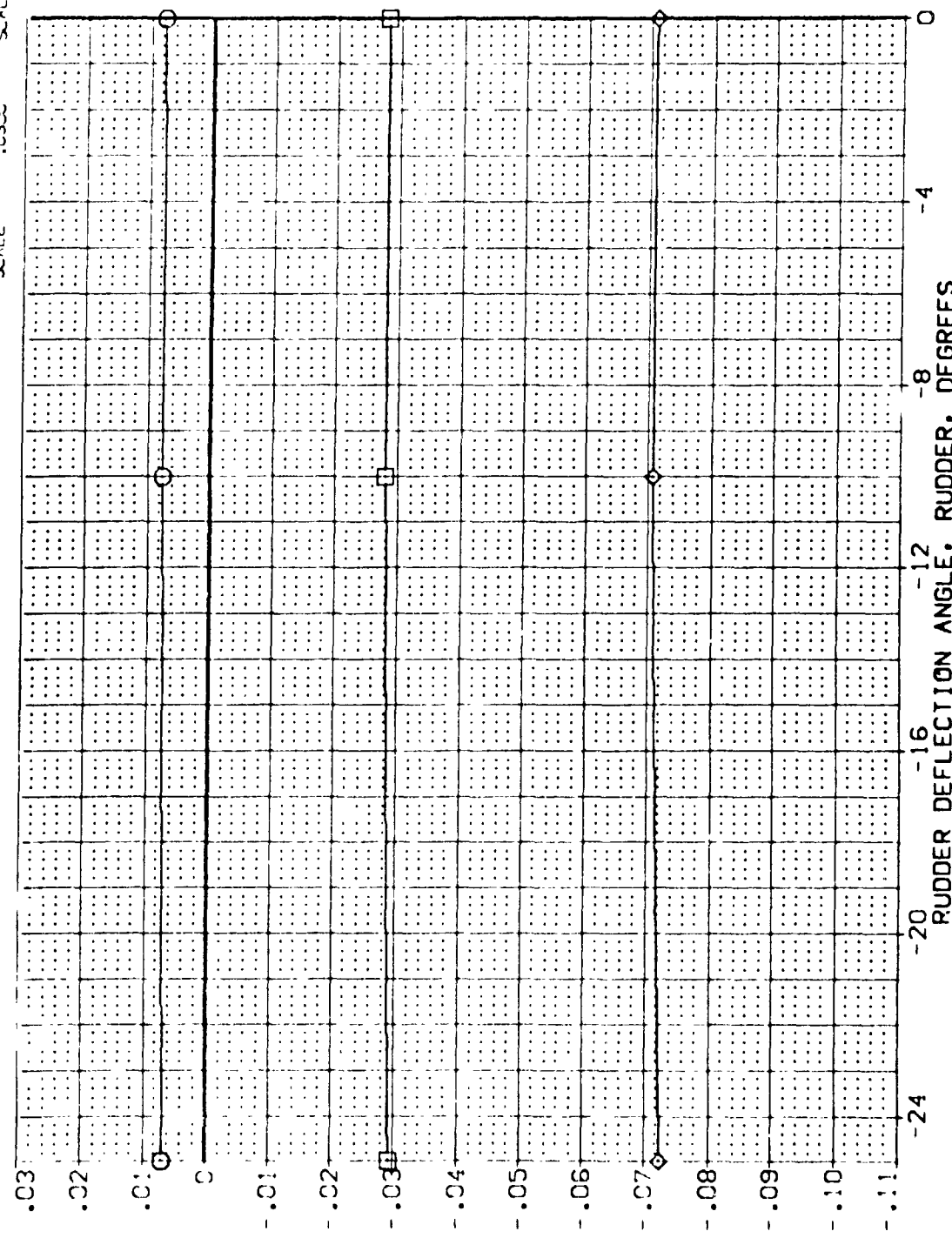


FIG. 40 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMOMENT. SPEEDBRAKE = 25 DEG

SYMBOL  
 ○  
 □  
 ◇

ALPHA  
 .000  
 10.000  
 20.000

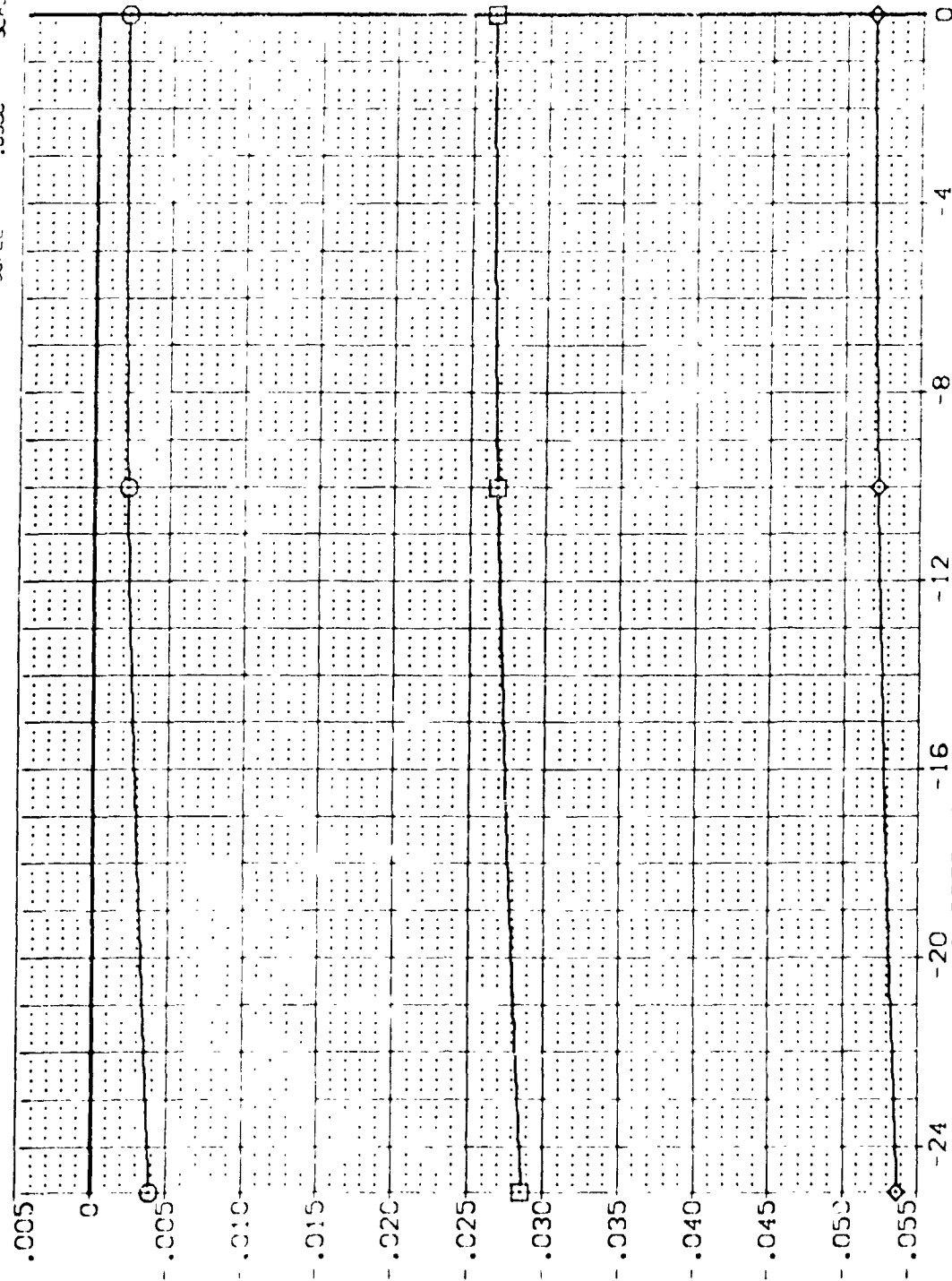
MACH  
 ELEVON  
 BDFLAP  
 ELEV-L

PARAMETRIC VALUES  
 2.500 BETA  
 .000 AILRON  
 -11.700 SPOBRK  
 .000 ELEV-R

.000  
 .000  
 25.000  
 .000

REFERENCE INFORMATION  
 SREF 2.4210  
 LREF 14.2440  
 BREF 28.004  
 XREF 32.3010  
 YREF .0000  
 ZREF 11.2500  
 SCALE .0300

OUTBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHEO



RUDDER DEFLECTION ANGLE, RUDDER, DEGREES

FIG. 40 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMENT, SPEEDBRAKE = 25 DEG

ARC 87-747 GAS3C B C M F W1 V NOM. RN/L (EEL051)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		REFERENCE INFORMATION	
○	.000	ELEVON	3.000	BETA	SREF	2.4210
◇	.000	BOFLAP	.000	ALL-ON	LRREF	14.2440
	.000	ELEV-L	-11.700	SPEEDBRAK	BRREF	28.1000
			.000	ELEV-R	WREF	32.3010
					ZREF	.0000
					SCALE	11.2500
						.0300

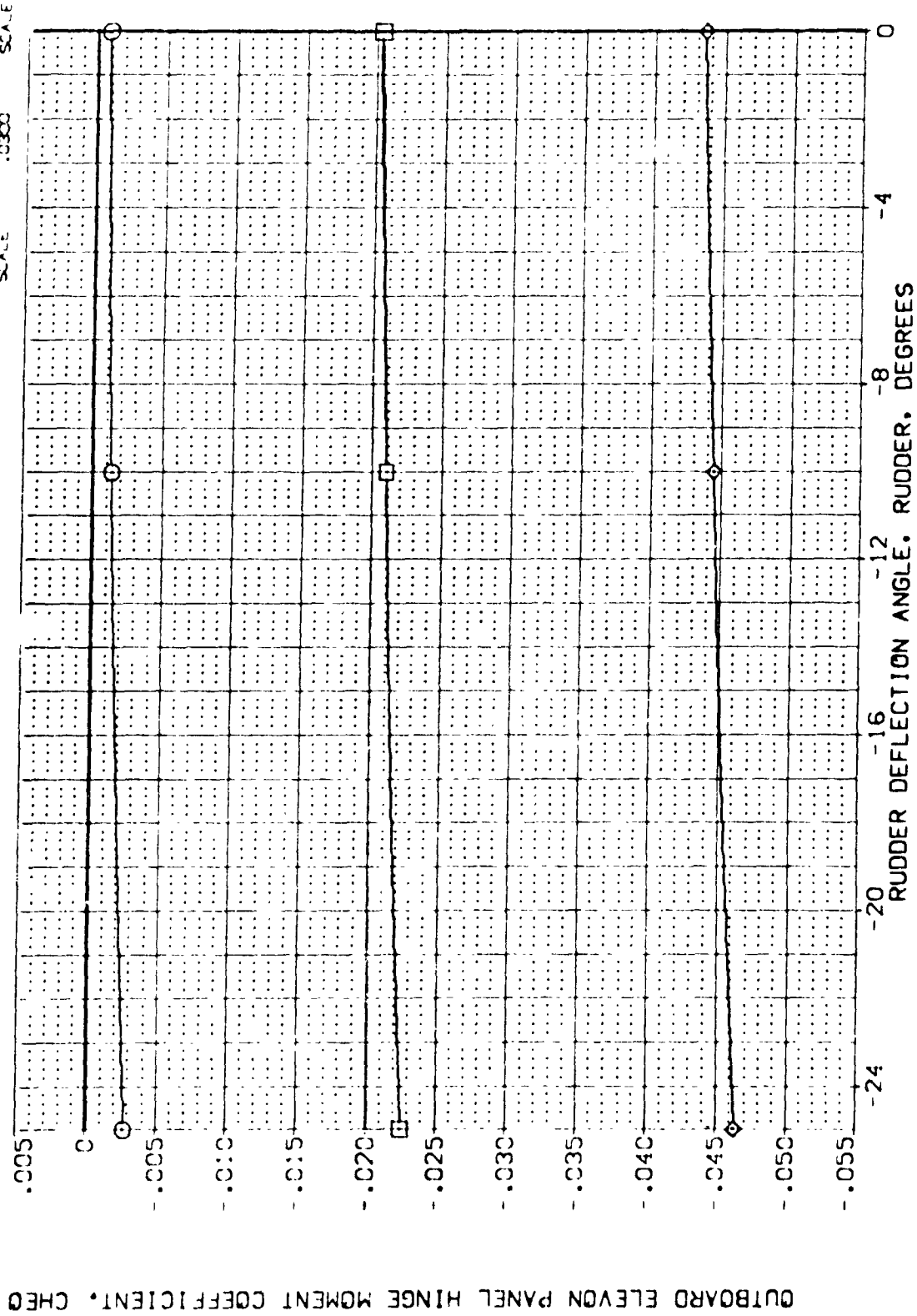


FIG. 40 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMENT, SPEEDBRAKE = 25 DEG  
PAGE 679

SYMBOL  
◇ 10  
○ 10

ALPHA  
.000  
10.000  
20.000

PARAMETRIC VALUES  
W-1 3.500 BETA .000  
ELEVON .000 AILRON .000  
BDFLAP -11.700 SPEEDRK 25.000  
ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION:  
SREF 2.4210 SCALE  
LREF 14.2440  
BREF 28.1004  
XREF 32.3010  
YREF 11.2500  
ZREF 10.3000  
SCALE

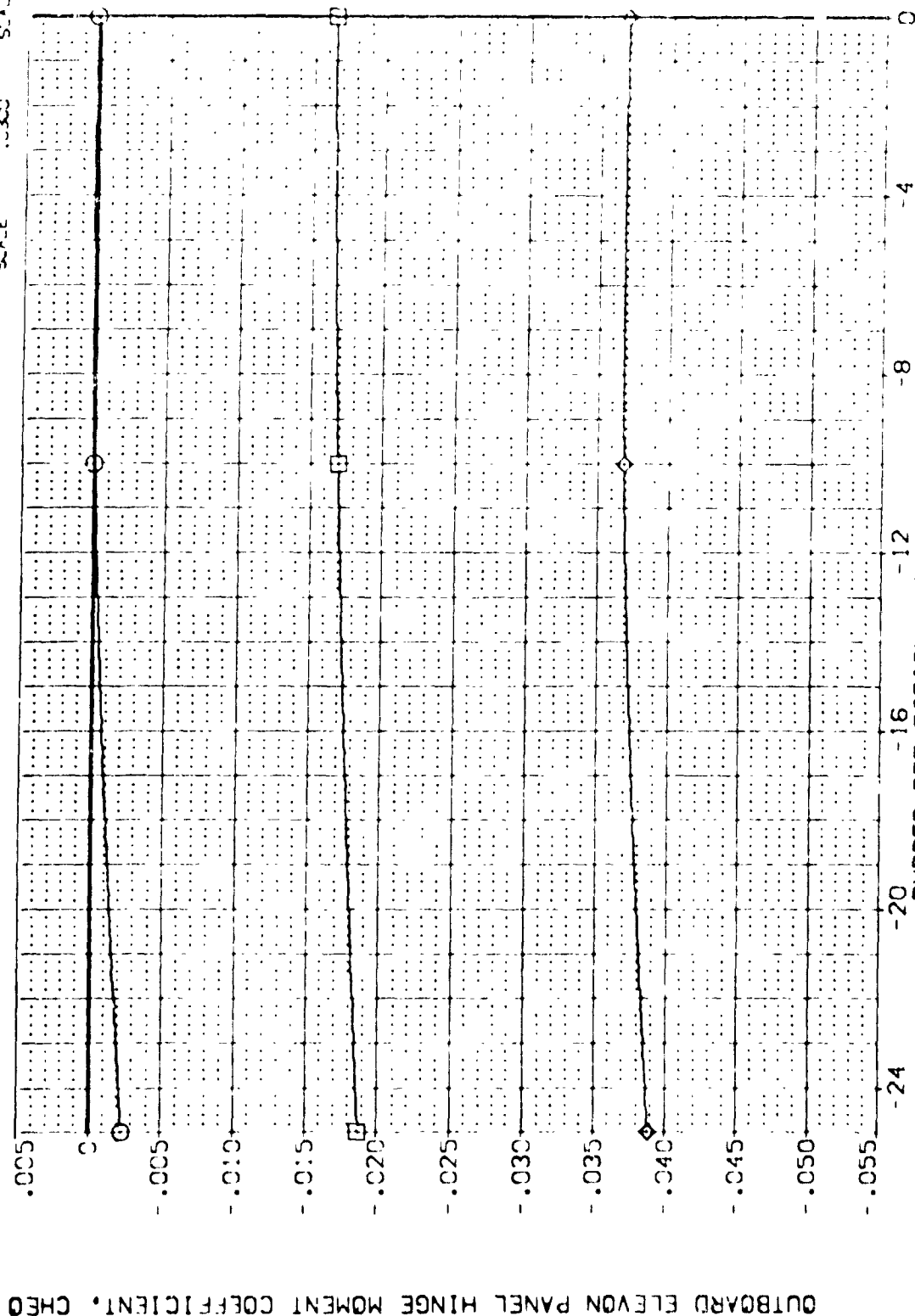


FIG. 40 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMOMENT, SPEEDBRAKE = 25 DEG

ARC 87-147 0A53C B C M F W1 V NOM. RN/L (EE-051)

SYMBOL

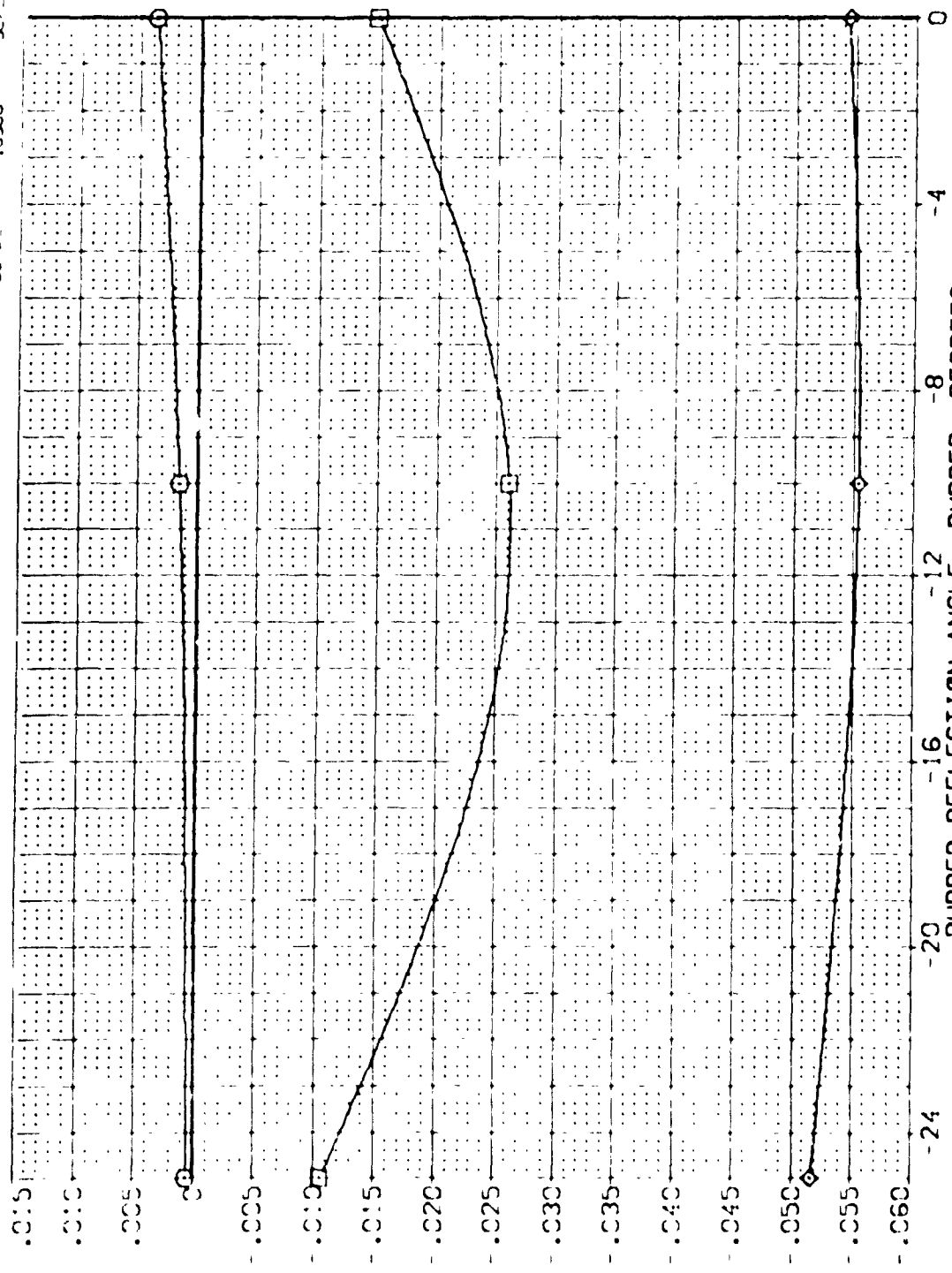
ALPH  
.000  
10.000  
20.000

MACH  
ELEVON  
BODYFLAP  
ELEV-L

PARAMETRIC VALUES  
2.500 BETA  
.000 AILRON  
-11.700 SPEEDBRK  
.000 ELEV-R

.000  
.000  
25.000  
.000

REFERENCE INFORMATION  
SPREF 2.4210 SQ.FT.  
LREF 14.2440  
BREF 28.004  
AMPP 32.0010  
YMPD 11.7500  
ZMPD 11.7500  
SCALE



BODYFLAP HINGE MOMENT COEFFICIENT, CHBF

FIG. 41 EFFECT OF RUDDER DEFLECTION ON BODYFLAP HINGEMOMENT, SPEEDBRAKE = 25 DEG

SYMBOL  
○  
◇

PARAMETRIC VALUES  
ALPHA .000 MACH 3.000 BETA .000  
ELEVON .000 AILRON .000  
20.000 BDFLAP -11.700 SPEEDRK 75.000  
ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
SREF 2.4210 SCALF  
LREF 14.2440  
BREF 28.1004  
KREF 32.3010  
YREF .0000  
ZREF 11.2504  
SCALE .0300

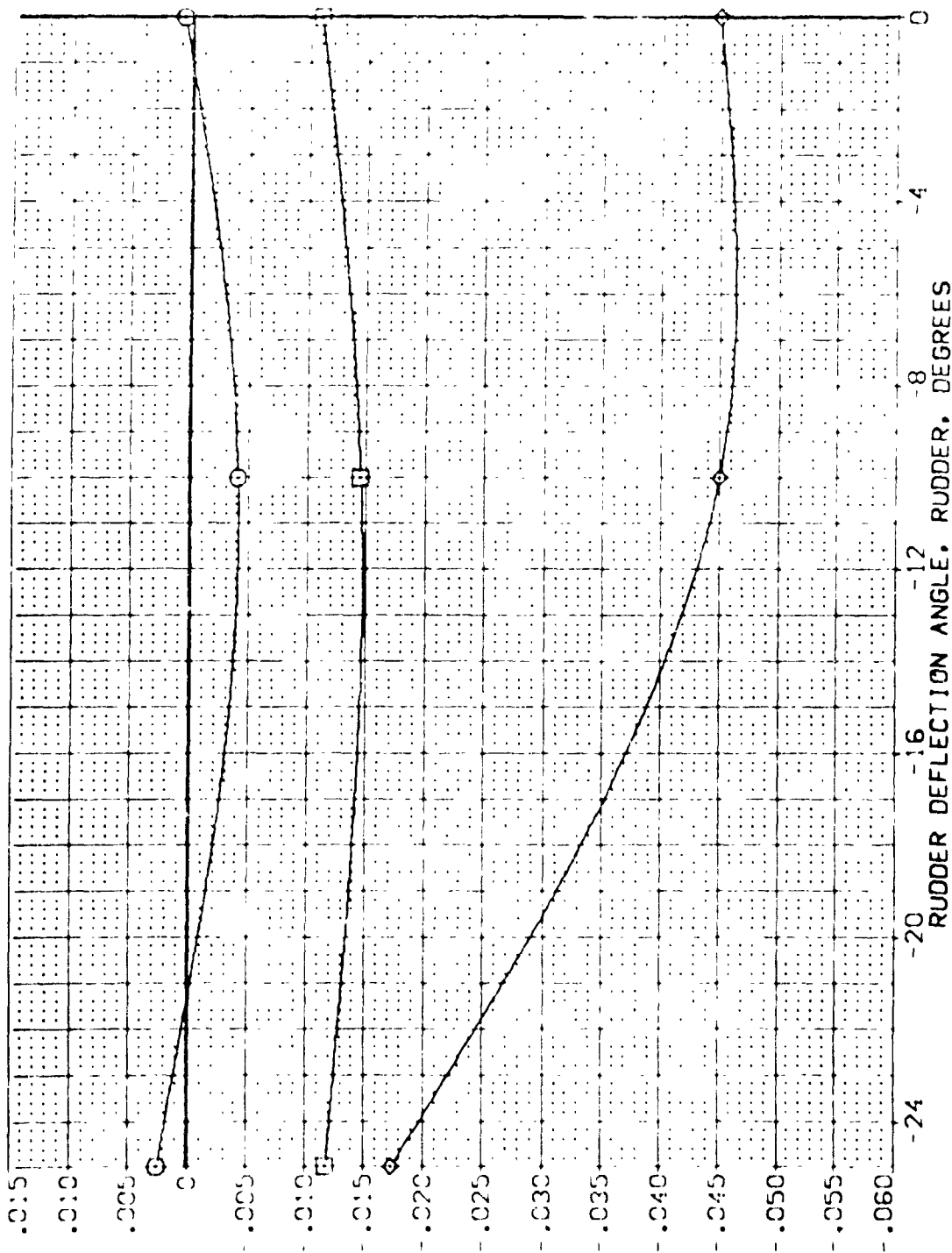


FIG. 41 EFFECT OF RUDDER DEFLECTION ON BODYFLAP HINGEMOMENT, SPEEDBRAKE = 25 DEG

ARC 87-74/ OA53C B C V F W1 V NOM. RN/L (EE.051)

SYMBOL

○ □ ◇

PARAMETRIC VALUES

MACH 3.500 BETA .000  
ELEVON .000 AILRON .000  
BDFLAP -11.700 SPODRK 25.000  
ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
SREF 2.4210 SC.F.T.  
RFE 14.2440 IN.  
BDFE 28.1004 IN.  
YMRD 32.3002 IN.  
ZMRD .0000 IN.  
SCALE 11.2500 IN.  
SCALE .0300

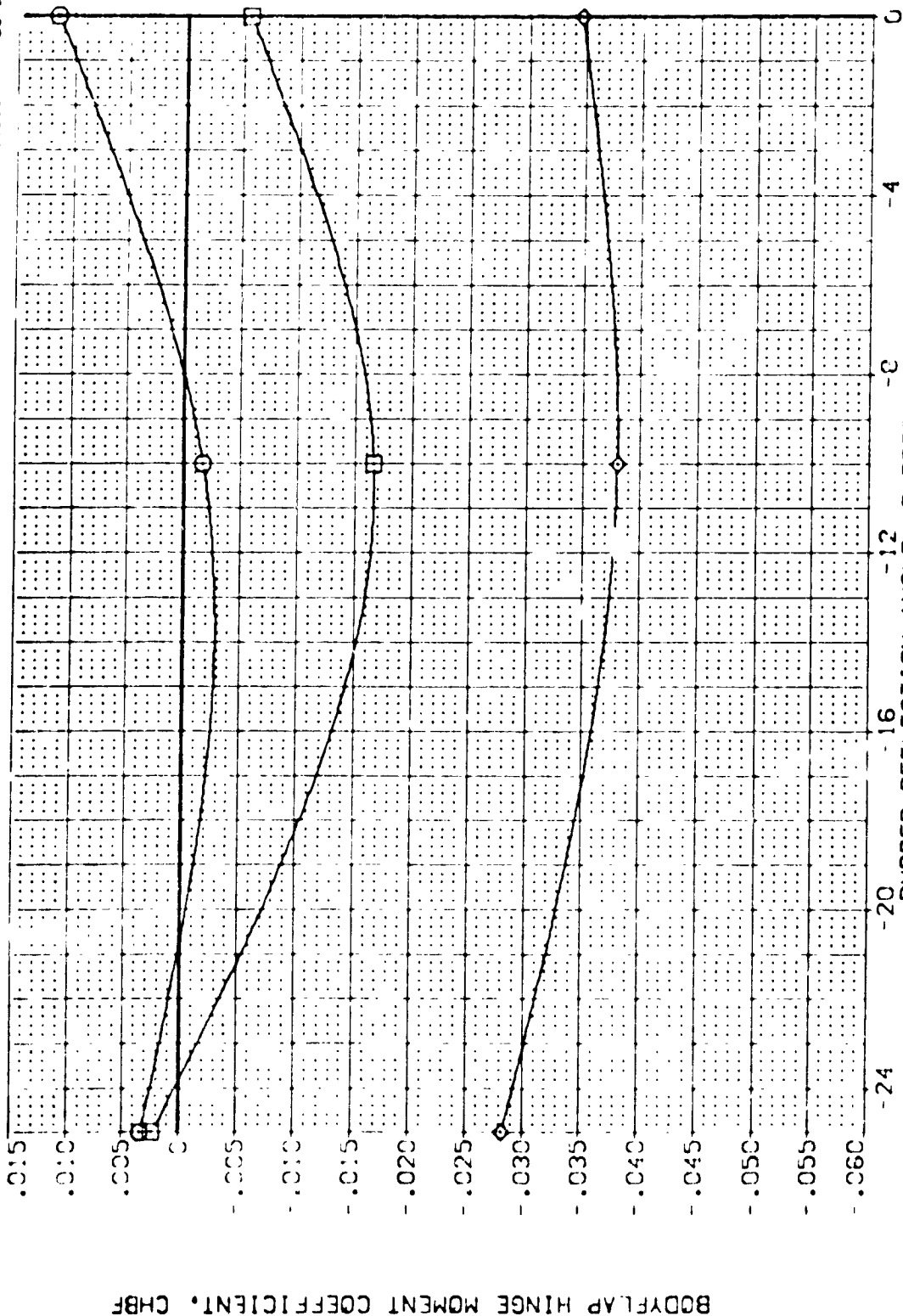


FIG. 4J EFFECT OF RUDDER DEFLECTION ON BODYFLAP HINGEMOMENT, SPEEDBRAKE = 25 DEG



ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL002)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	AILRON	AILRON	SREF	REFERENCE INFORMATION
.000	2.500	BETA	.000	EEL002	5.000	5.000	2.4210	2.4210
10.000	-10.000	BOFLAP	-11.700	EEL002	10.000	10.000	14.2440	14.2440
20.000	50.000	RUDER	.000	EEL021	15.000	15.000	28.1004	28.1004
	-10.000	ELEV-R	-10.000				32.3010	32.3010
							.0000	.0000
							11.2500	11.2500
							.0000	.0000
							SCALE	SCALE

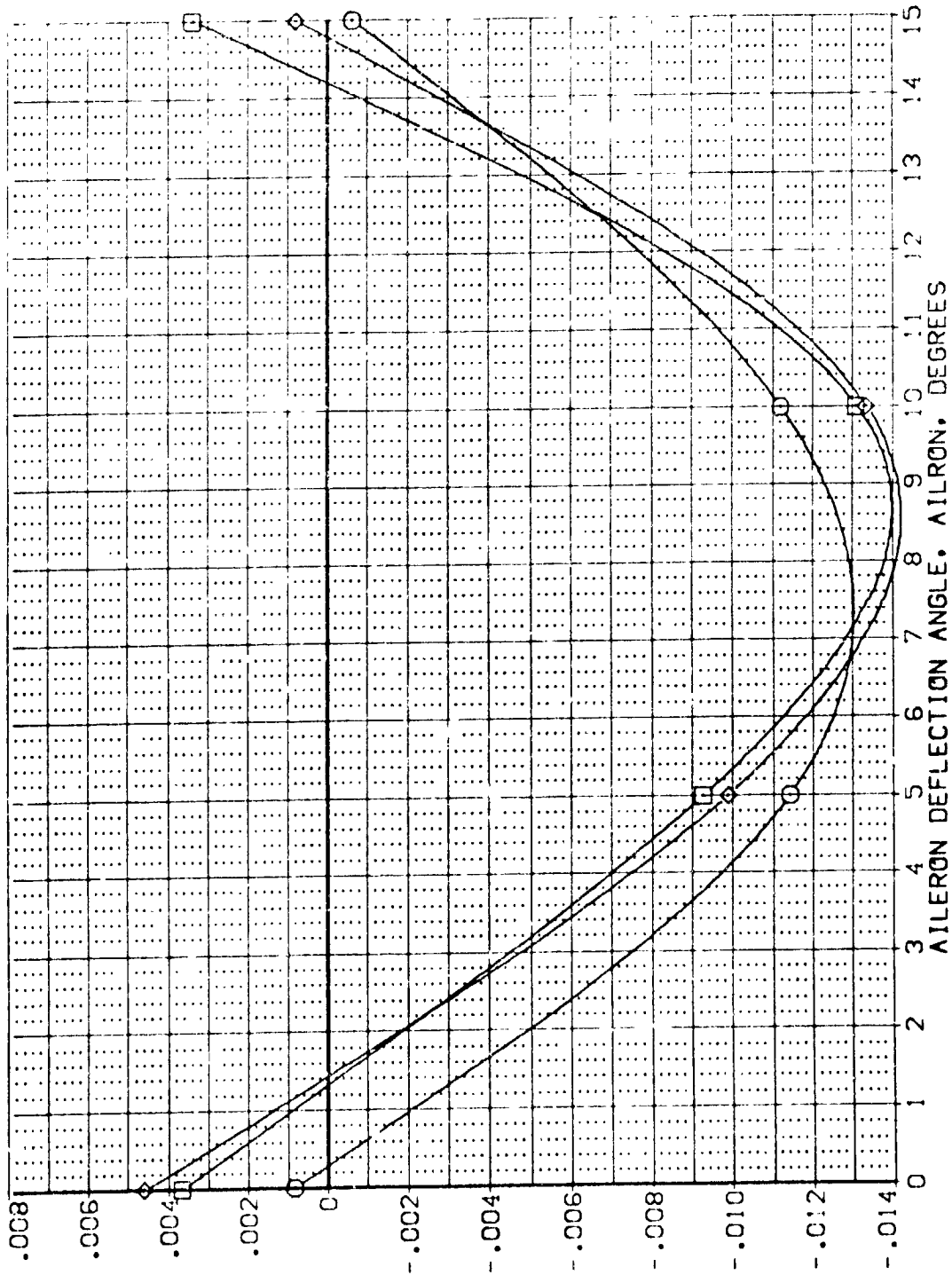


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMENT

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL002)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION	
○	.000		BETA	.000	DATA SET	AILRON	SRF	2.4210	SCALE
-	10.000	ELEVON	BOFLAP	-11.700	EEL002	.000	REF	14.244C	
◇	20.000	SPODBK	RUDER	.000	EEL021	10.000	BRF	28.1004	
		ELEV-L	ELEV-R	-10.000			YMRP	32.3010	
							ZMRP	.0000	
							SCALE	11.2500	SCALE
								.0300	

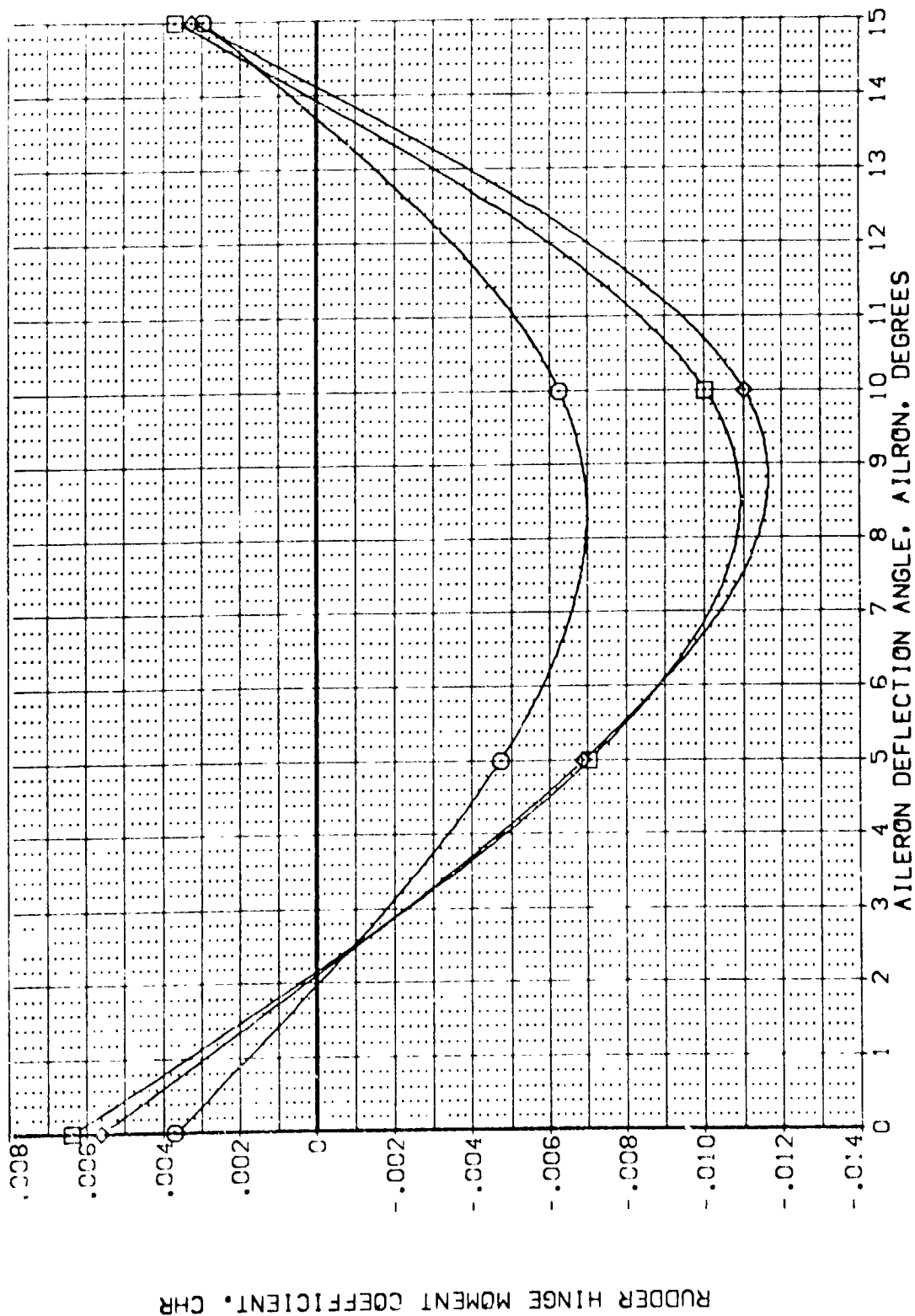


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMENT

(200733)

01000000

ALPHA	MACH	ELEVON	SPOBRK	ELEV-L
.000				
10.000				
20.000				

PARAMETRIC VALUES	
BETA	3.500
BOFLAP	-10.000
RJODER	55.000
ELEV-R	-10.000

.000	DATASET
-11.700	EEL002
.000	EEL021
-10.000	

DATA SOURCE	ALLEN	10.000
10.000		

DATASET	AIRLON
EEL005	5.000
EEL044	15.000

REFERENCE INFORMATION

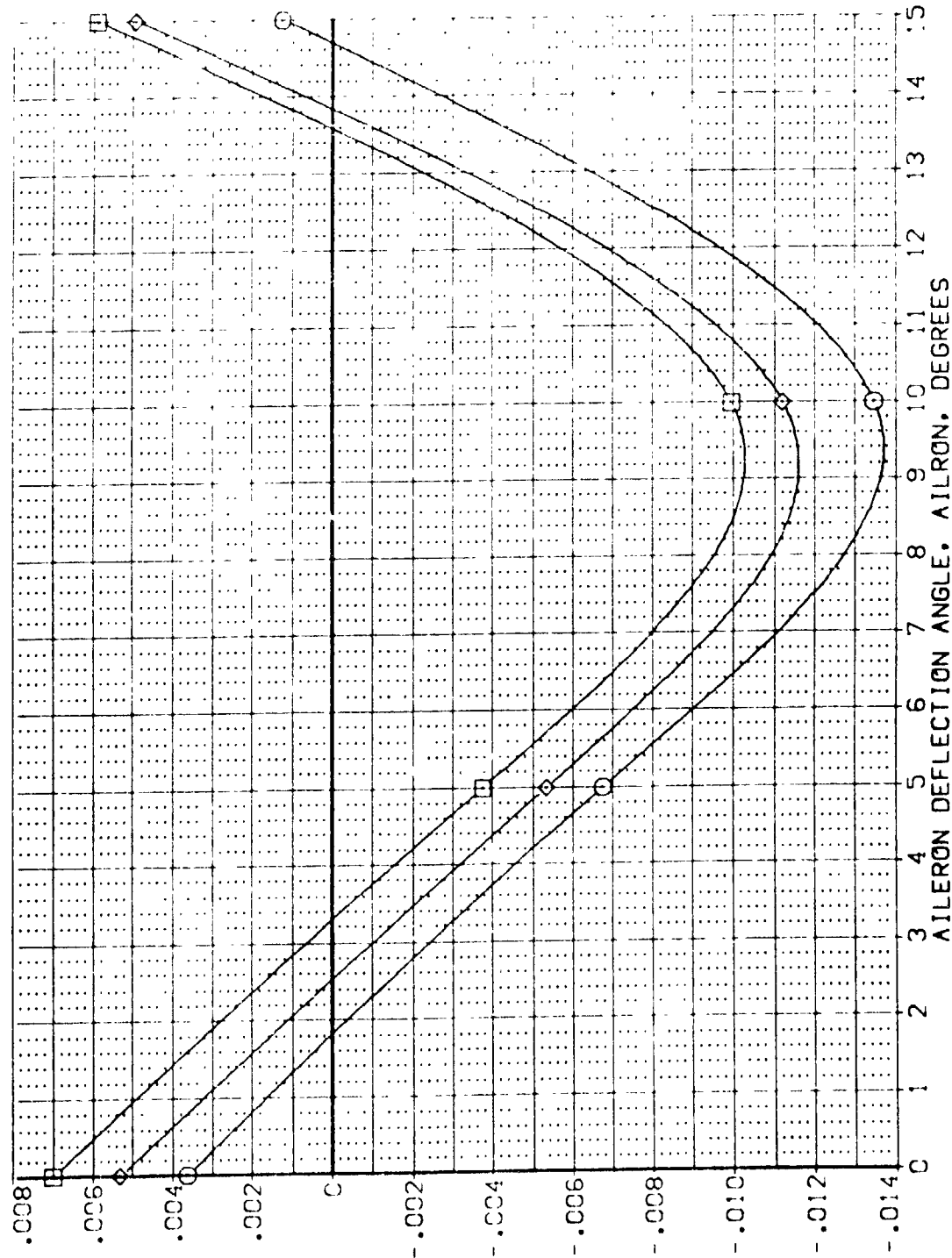


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMOMENT



SYMBOL  
 ○  
 □  
 ◇

PARAMETRIC VALUES  
 MACH 3.000  
 ELEVON -10.000  
 SPOBRK 55.000  
 ELEV-L -10.000  
 BETA  
 BOFLAP  
 RUDDER  
 ELEV-R

DATA SOURCE  
 DATASET .000  
 EEL002  
 EEL021  
 AILRON  
 10.000  
 10.000

REFERENCE INFORMATION  
 SREF 2.4210  
 LREF 14.2440  
 BREF 28.1004  
 XMRP 32.3010  
 YMRP .0000  
 ZMRP 11.2500  
 SCALE 1.0000

UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

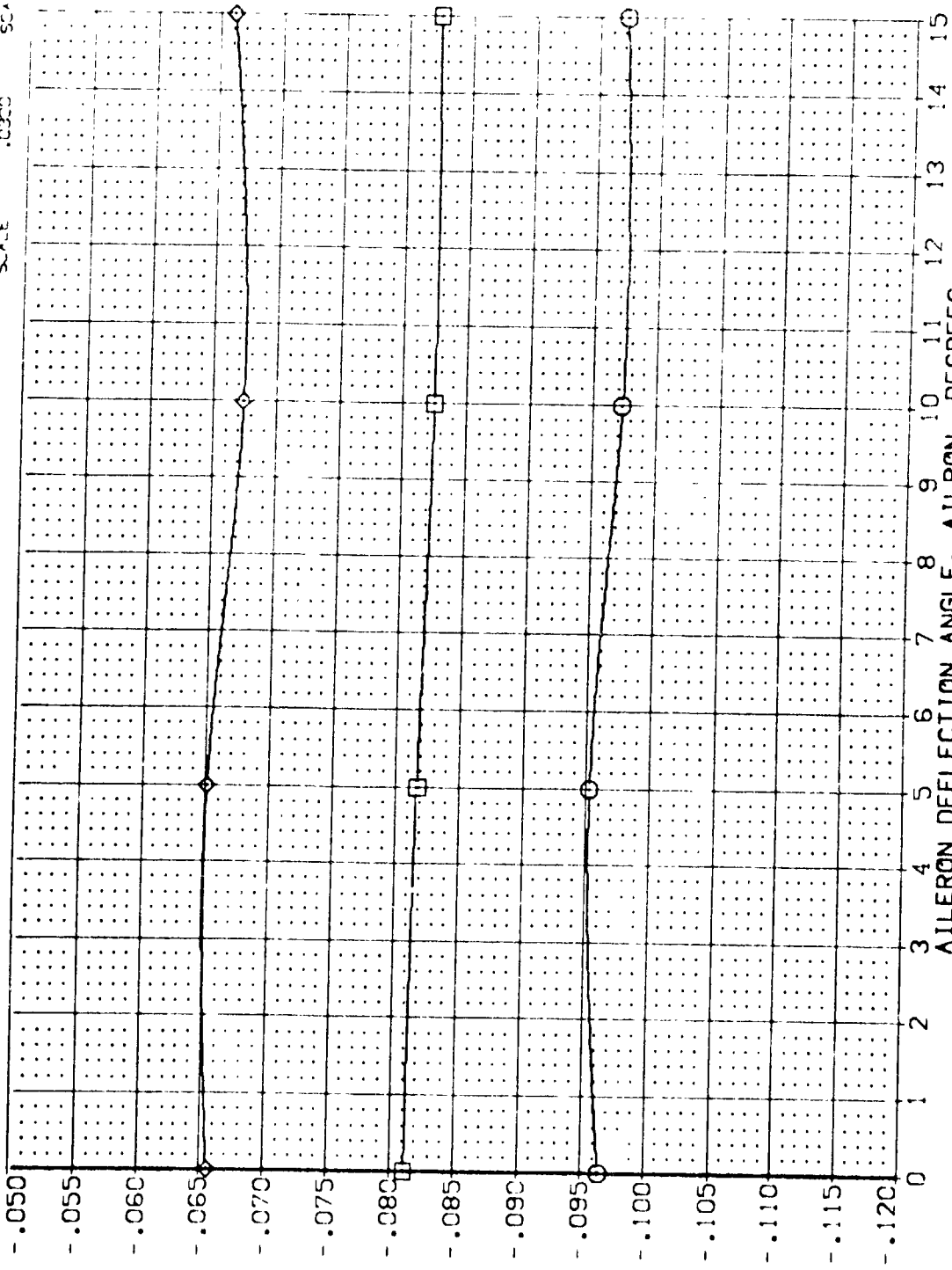


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMENT

ARC 87-747 0A53C B C M F W I V NOM. RN/L (EEL002)

PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
ALPHA	MACH	AILRON	DATA SET	AILRON	SREF
.000	3.500	.000	AILRON	5.000	2.4210
10.000	-10.000	-11.700	EEL002	15.000	14.2440
20.000	55.000	.000	EEL021		28.1004
	ELEV-L	ELEV-R			32.3010
					.0000
					11.2500
					.0303
					SCALE

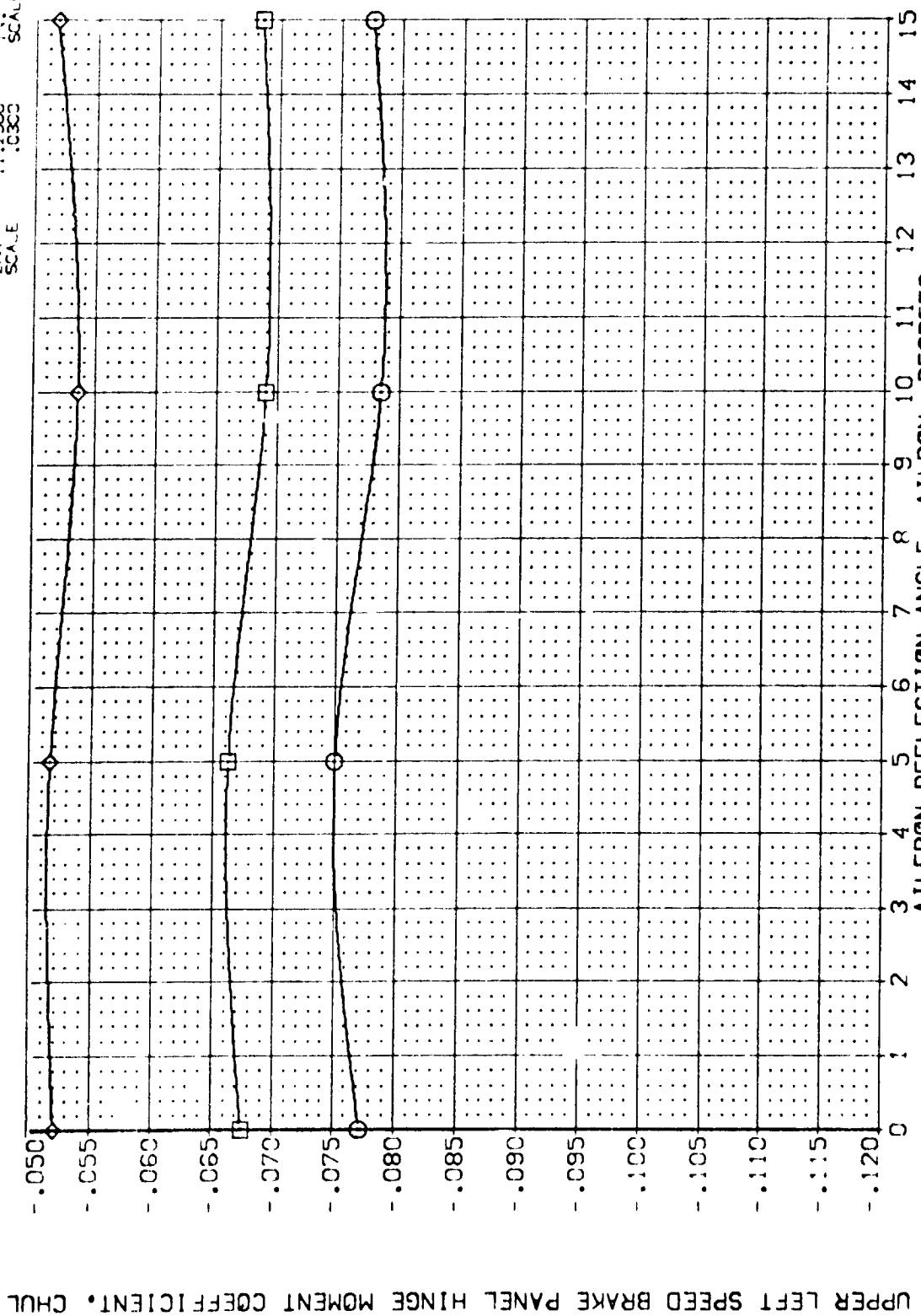


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMENT

SYMBOL

ALPHA  
.000  
10.000  
20.000

MACH  
ELEVON  
SPDRK  
ELEV-L

PARAMETRIC VALUES  
2.500 BETA  
-10.000 BDFLAP  
55.000 RUDDER  
-10.000 ELEV-R

DATA SOURCE  
AILRON  
.000  
10.000

DATASET  
EEL002  
EEL021

REFERENCE INFORMATION  
SREF  
LREF  
BREF  
XMRP  
YMRP  
ZMRP  
SCALE

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

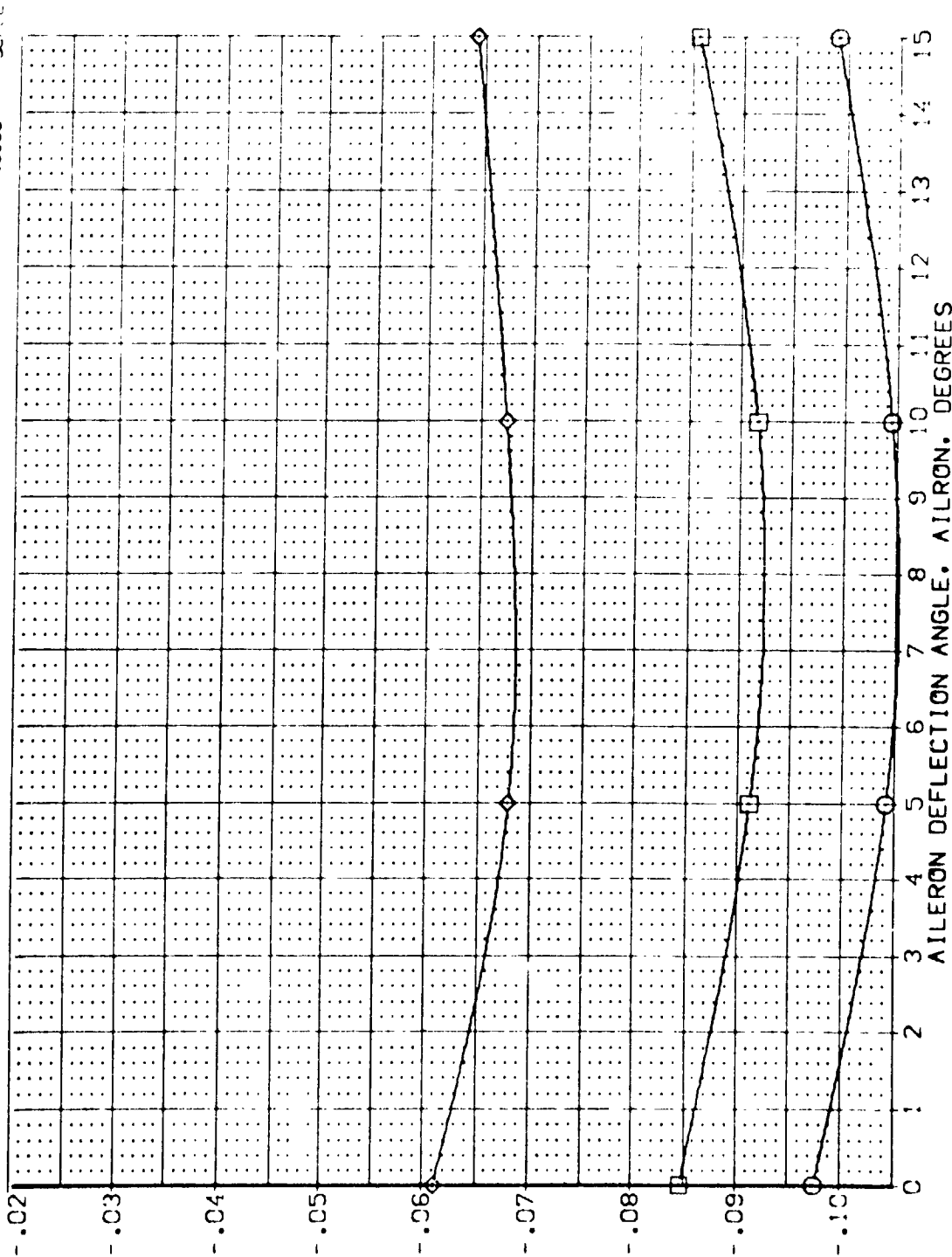
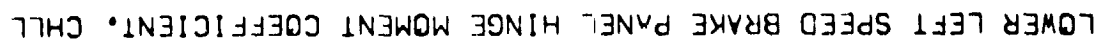


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMENT

AC 87-74

PARAMETER	UNIT
ALPHA	0.000
MACH	3.000
ELEVON	-10.000
SPOBRK	55.000
ELEV-L	-10.000



PAGE 691



(FEL002)

SYNOPSIS

ALPHA

### PARAMETRIC VALUES

DATA SUPPLY

100

0110

WACH	.000
ELEVON	10.000
SPOBRK	20.000
ELEV-L	

3.500	BETA
-10.000	BOFLAP
55.000	RJDER
-10.000	ELEV-R

DATA SET  
EEL002  
EEL021

10.000  
000.000

AIRLON  
5.000  
15.000

REFERENCE IN DRAWING	SG. FT.
2.42:0	1
14.24:0	2
28.100:4	3
32.30:0	4

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL



FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMOMENT

(CEL002)

0.10

ALPHA  
-000  
!0.000  
20.000

7-A373  
XEROX  
NOV 37 13  
HOM

PARAMETRIC VALUES

.000  
 -11.700  
 .000  
 -10.000

DATASET	DATA SOURCE
EEL002	AIRLON
EEL021	.000
	10.000

DATASET	AIRLON	SREF
EELO05	5.000	LRFF
EELO44	15.000	Box F
		XMRP
		YMRP

REFERENCE INFORMATION

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

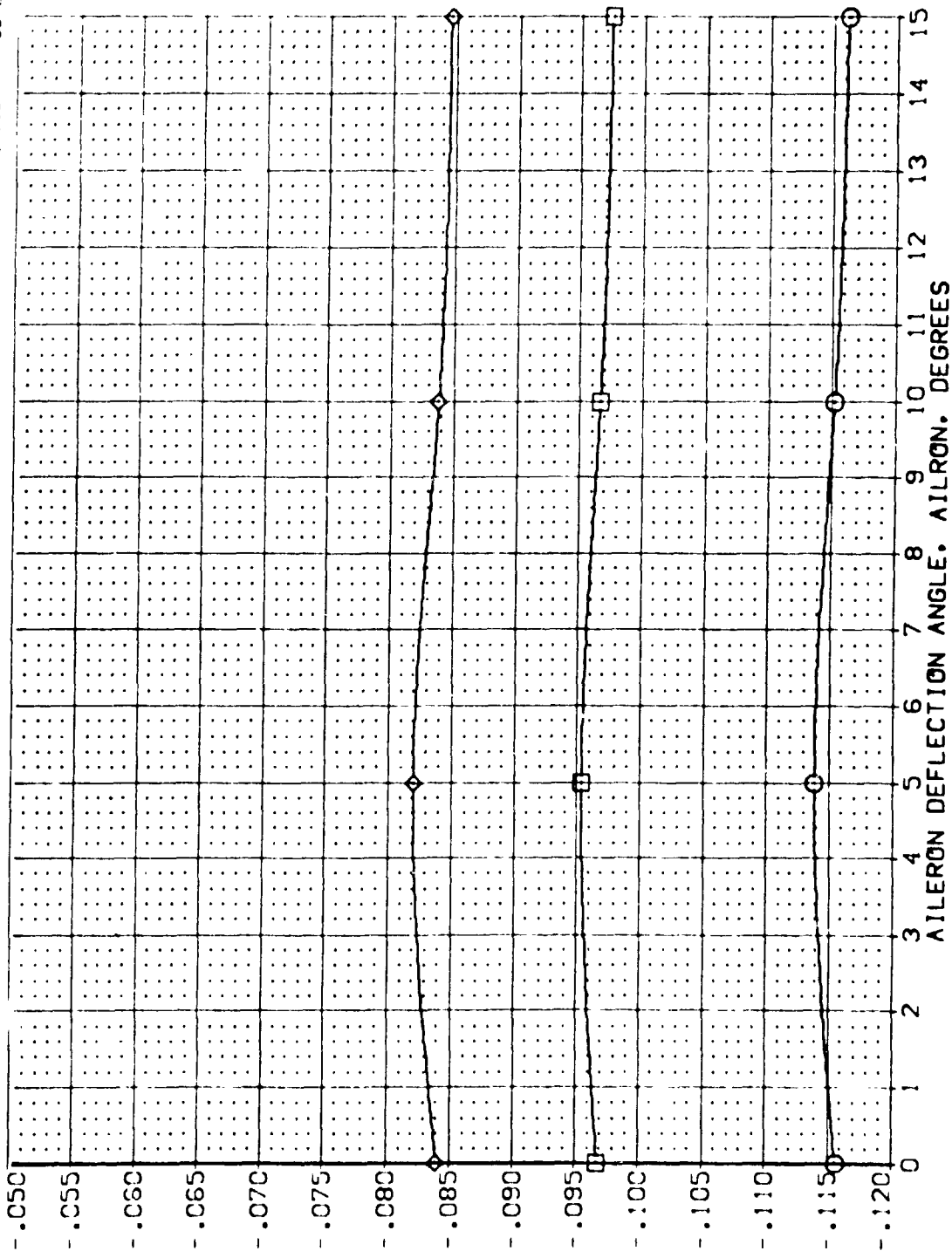


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMOMENT

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL002)

SYMBOL

ALPHA  
0.000  
10.000  
20.000

PARAMETRIC VALUES  
MACH 3.000  
ELEVON -10.000  
SPDBRK 55.000  
ELEV-L -10.000  
BETA  
BOLAP  
RLODER  
ELEV-R

DATA SOURCE  
DATASET  
EEL002  
EEL021  
AILRON  
10.000  
-11.700  
-10.000

REFERENCE INFORMATION  
SREF 2.421C  
LREF 14.744C  
BREF 28.1004  
XREF 32.301C  
YREF 1.000C  
ZREF 11.250C  
SCALE .0300

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

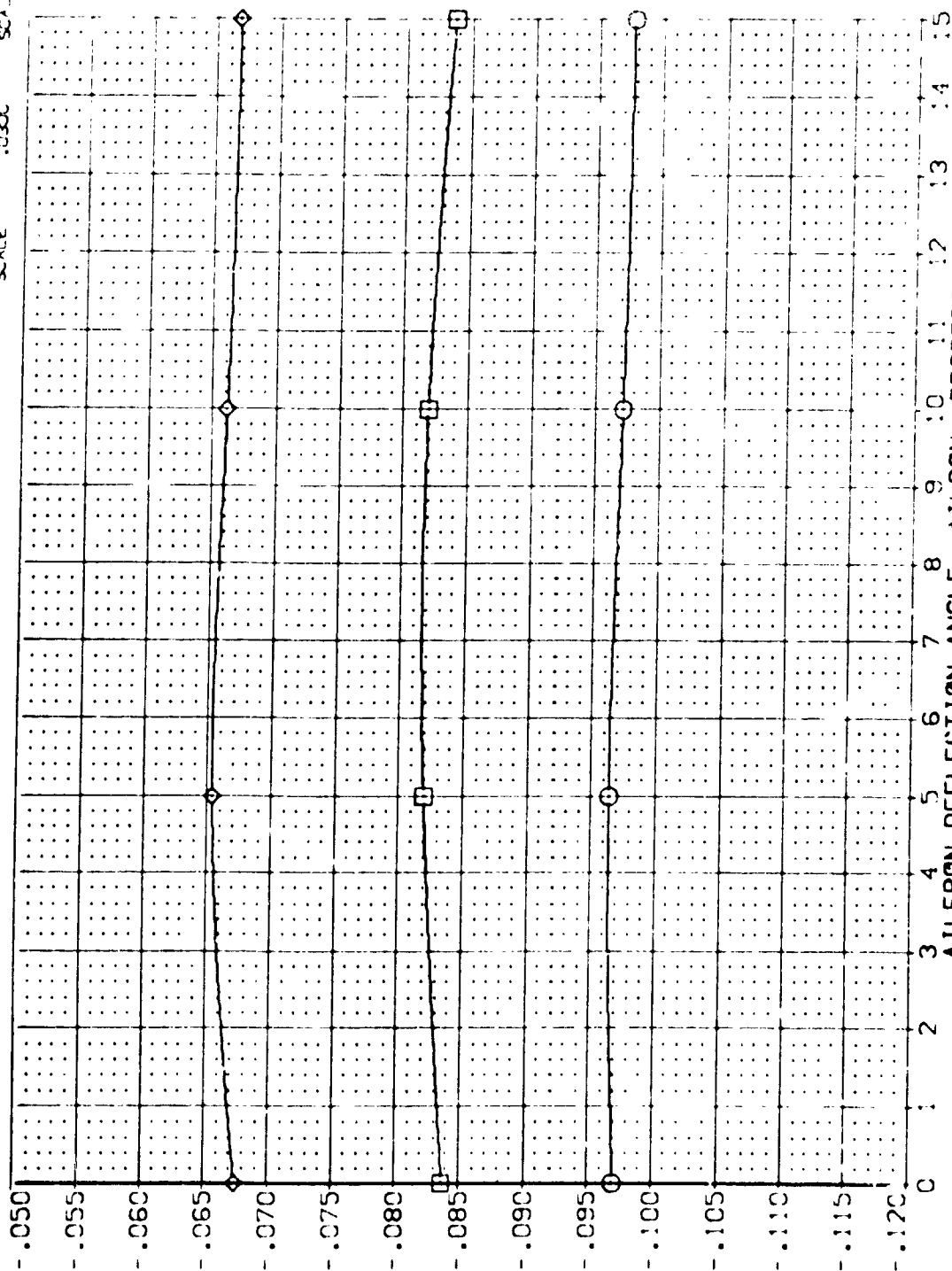


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMENT

10

ALPHA	PARAMETRIC VALUES
.000	BETA
10.000	BCLAP
20.000	RUDDER
	ELEV-R
	ELEV-L
	MACH
	ELEV-R
	SPEED
	ELEV-L

DATA SOURCE

DATASET  
 EEL005  
 EEL044

5.000	SALES
15.000	SALES

REFERENCE INFORMATION

2 4212	SO.F.
18 2446	1
28 1004	2
32 3010	3
0000	4
11 2500	5
0300	6

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

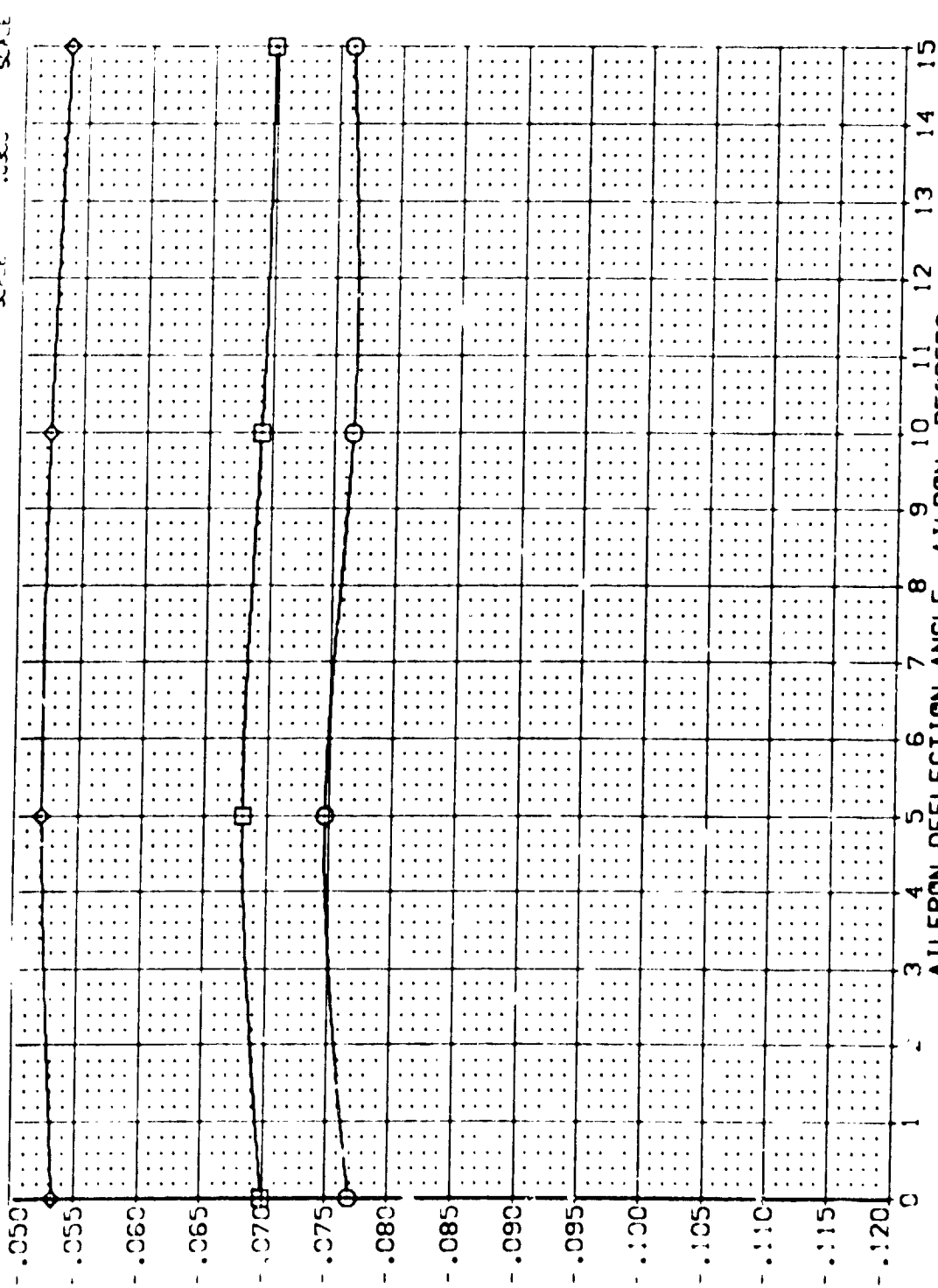


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMOMENT

(200733)

0010

ALPHA  
10.0000  
20.0000

7-A373  
XEROX  
NOV 3 1973  
HQM

PARAMETRIC VALUES	
BETA	2.500
BOFLAP	-10.000
RUDDER	55.000
ELEV-R	-10.000

.000	DATASET
-11.700	EEL002
.000	EEL021
-10.000	

DATA SOURCE  
MILRON  
0.000  
10.000

**DATASET**

AL-ROV	SREF
5.000	LEF
15.000	BREF
	YMRD
	YMRD
	ZMRD
	SCA-E

REFERENCE INFORMATION



FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMOMENT

ARC 87-747 0A53C B C M F W I V NOM. RN/L (EEL002)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0.0	0.000	BETA	0.000	2.4210
10.000	0.000	BOFLAP	0.000	14.2440
20.000	0.000	RUDDER	10.000	28.1004
		ELEV-L	-10.000	32.3010
		ELEV-R	-10.000	0.0000
				11.2500
				0.0300
				SCALE

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

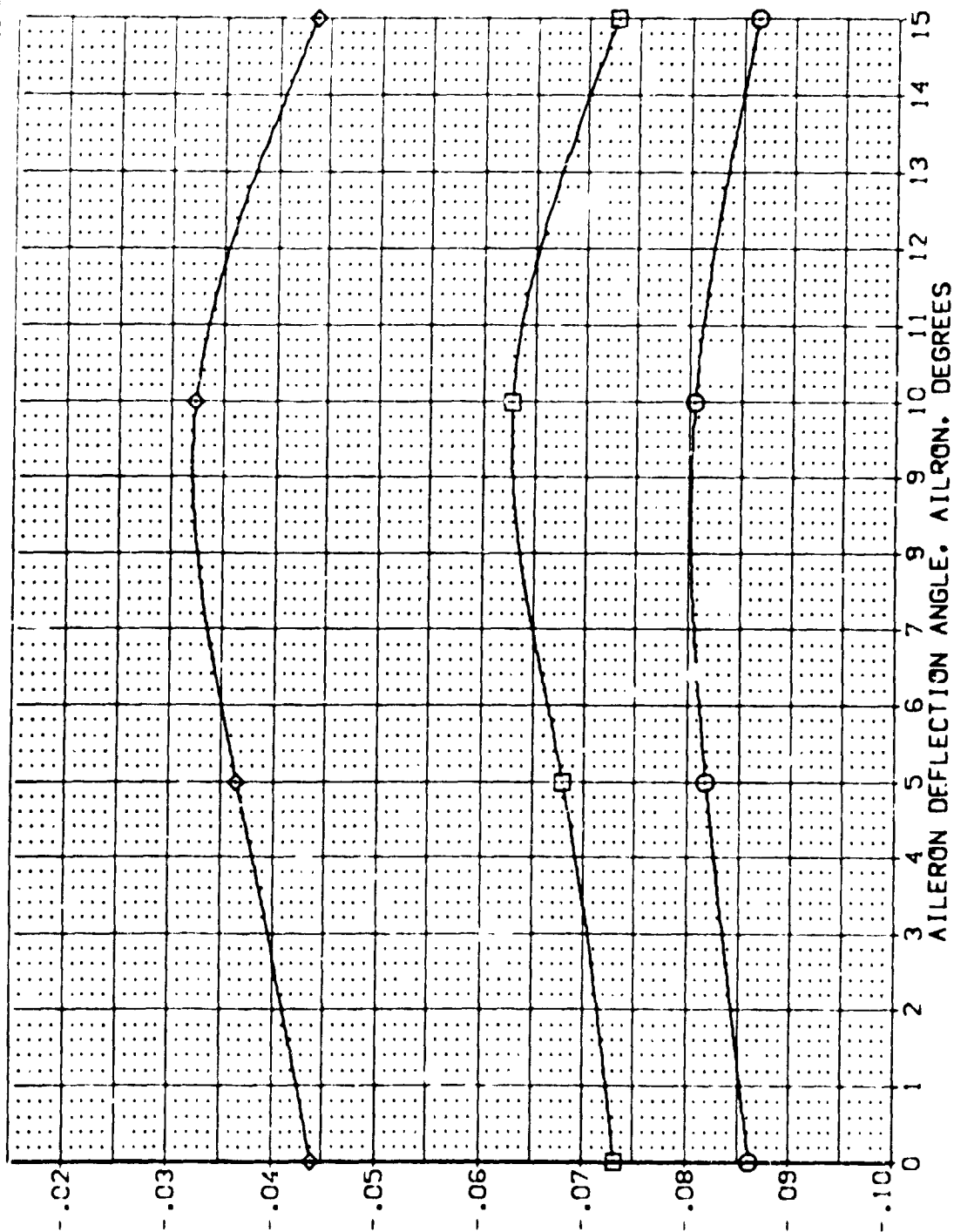


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMENT

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL002)

ALPHA	MACH	PAR. METRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
.000	3.500	BET.	AILRON	SREF
10.000	-10.000	BOFLAP	EEL002	LREF
20.000	55.000	RUDDER	EEL021	BREF
	-10.000	ELEV-R		XREF
		ELEV-L		YREF
				ZREF
				SCALE

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

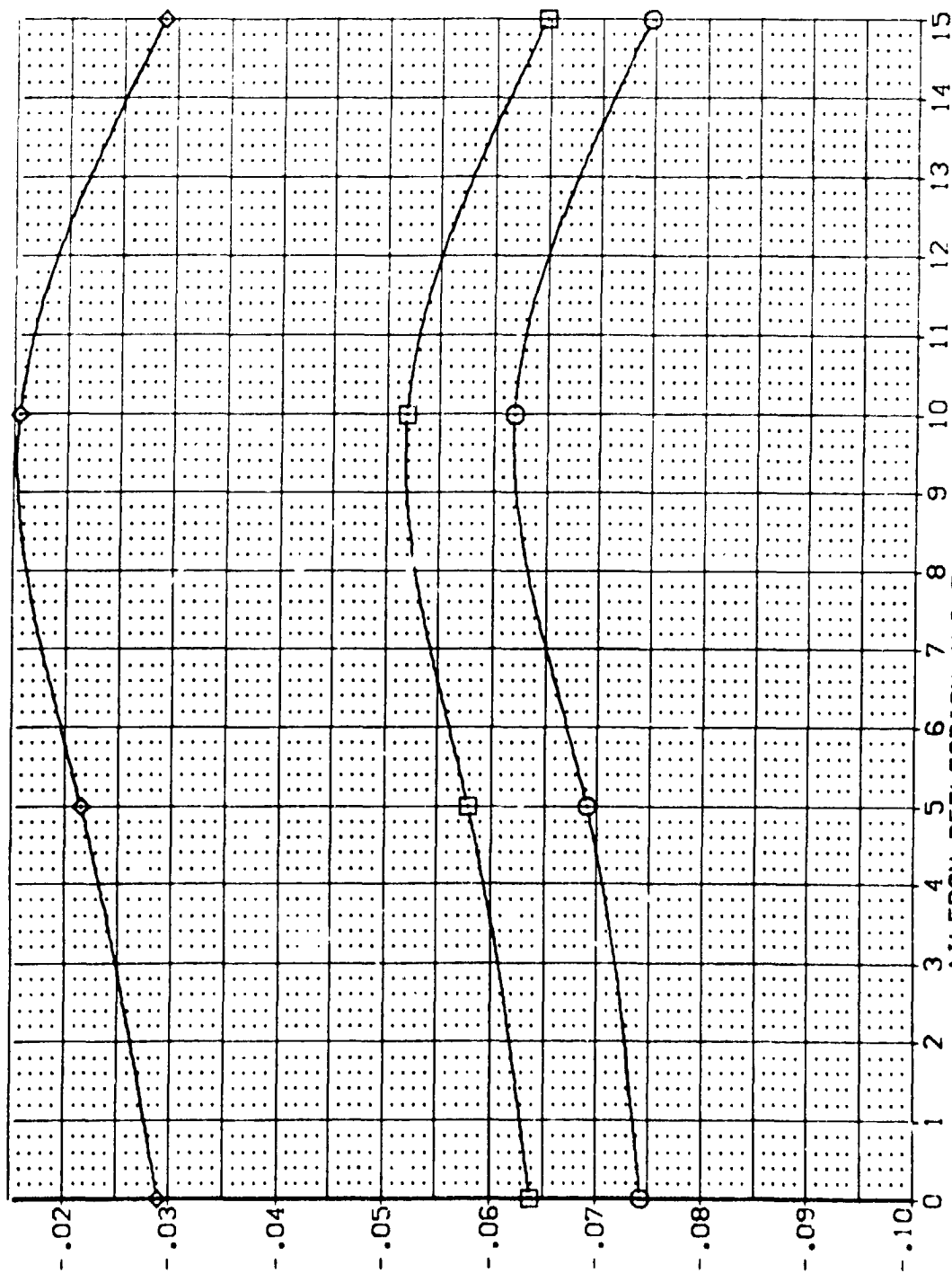


FIG. 42 EFFECT OF AILERON DEFLECTION ON RUDDER HINGEMENT

(CEL002)

10-10-85

ALPHA	MACH
.000	ELEVON
10.000	SPOBRK
20.000	ELEV-L

PARAMETRIC VALUES

DATA SET	DATA SIZE
ALLIRON	10,000
EEL002	11,700
EEL021	10,000
	10,000

DATA SOURCE	ALL	IRON
	.000	10.000

DATASET	AIRLON	SPE F
EEL005	5,000	REF
EEL044	15,000	SPE F

REFERENCE INFORMATION

2,4210	SG.FT.
14,2440	N.
28,1004	N.
32,3010	N.
3000	N.
11,2500	N.
.0300	SCALE

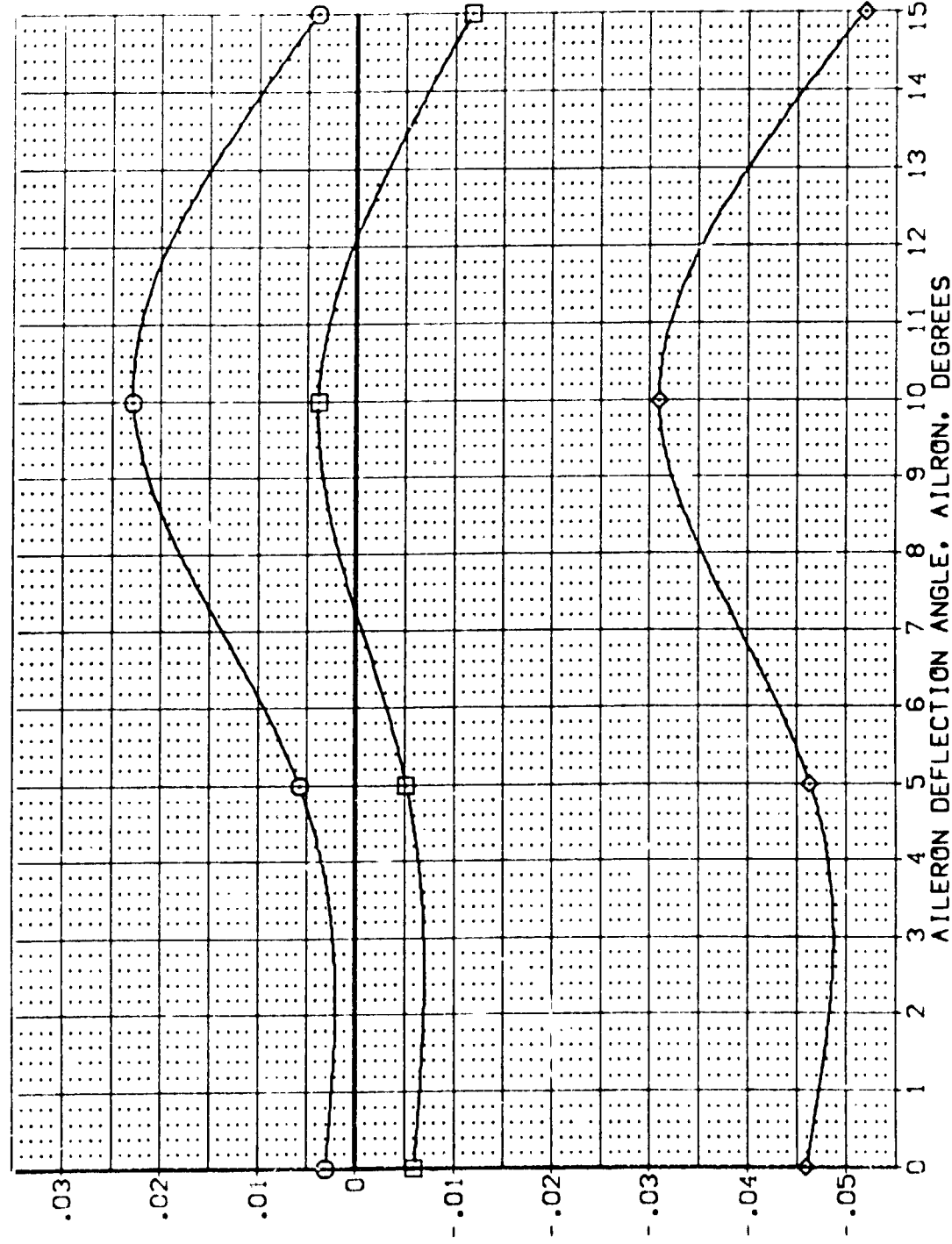


FIG. 43 EFFECT OF AILERON DEFLECTION ON BODYFLAP HINGEMENT



ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL002)

SYMBOL

ALPHA  
.000  
10.000  
20.000

PARAMETRIC VALUES  
MACH 3.000  
ELEVON -10.000  
SPOBRK 55.000  
ELEV-L -10.000

DATA SOURCE  
DATASET .000  
EEL002  
EEL021

AILRON  
10.000

DATA SET  
EEL005  
EEL044

AILRON  
5.000  
15.000

REFERENCE INFORMATION  
SPREF 2.4210  
LREF 14.2440  
BREF 28.1004  
XMRP 32.3010  
YMRP .0000  
ZMRP 11.2500  
SCALE .0300

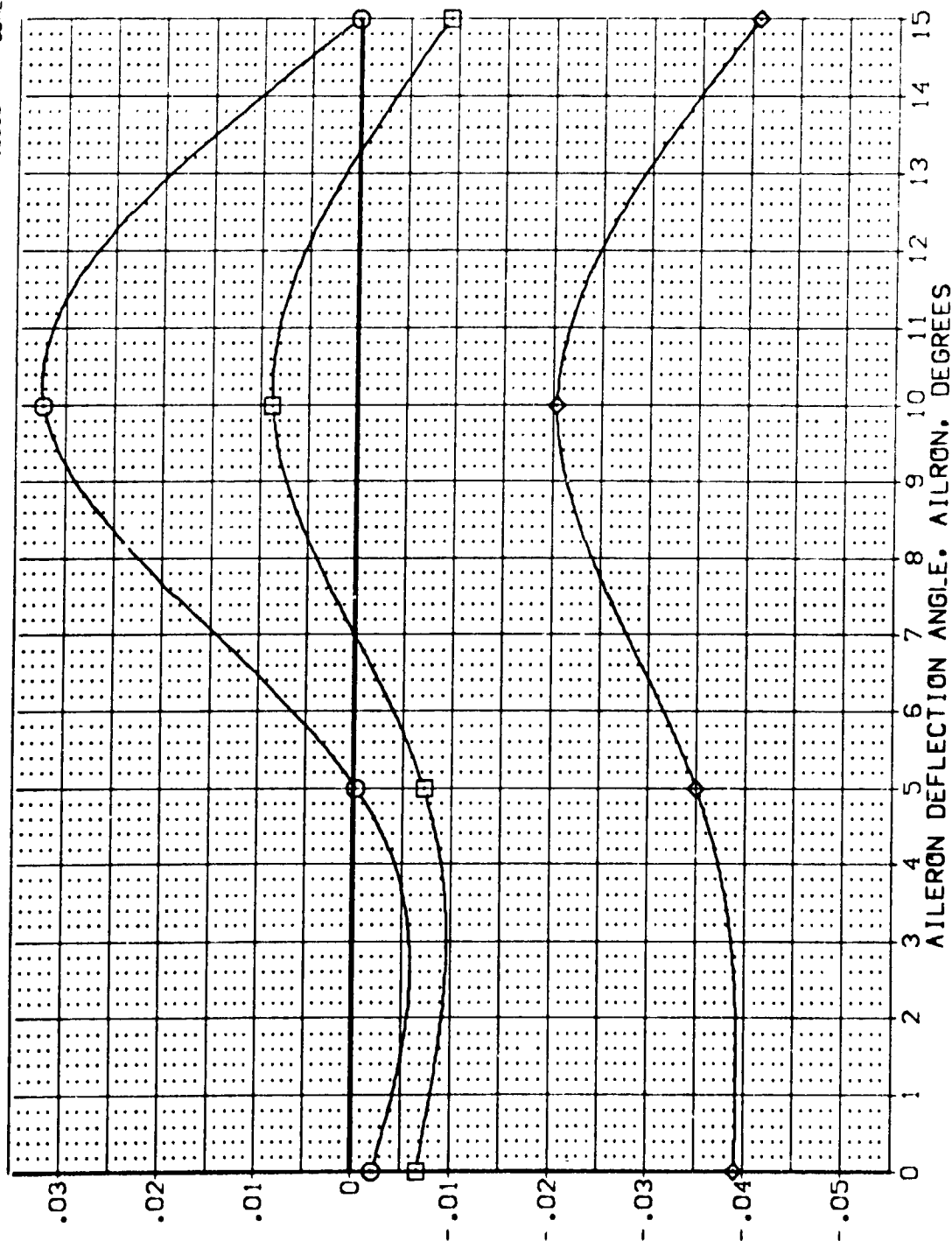


FIG. 43 EFFECT OF AILERON DEFLECTION ON BODYFLAP HINGE MOMENT

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL002)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	.000		3.500 BETA	.000 DATASET	SREF
◇	10.000	ELEVON	-10.000 BOFLAP	EEL005	LREF
	20.000	SPOBRK	55.000 RUDDER	EEL044	BREF
		ELEV-L	-10.000 ELEV-R		XREF
					YREF
					ZREF
					SCALE
					SCALE

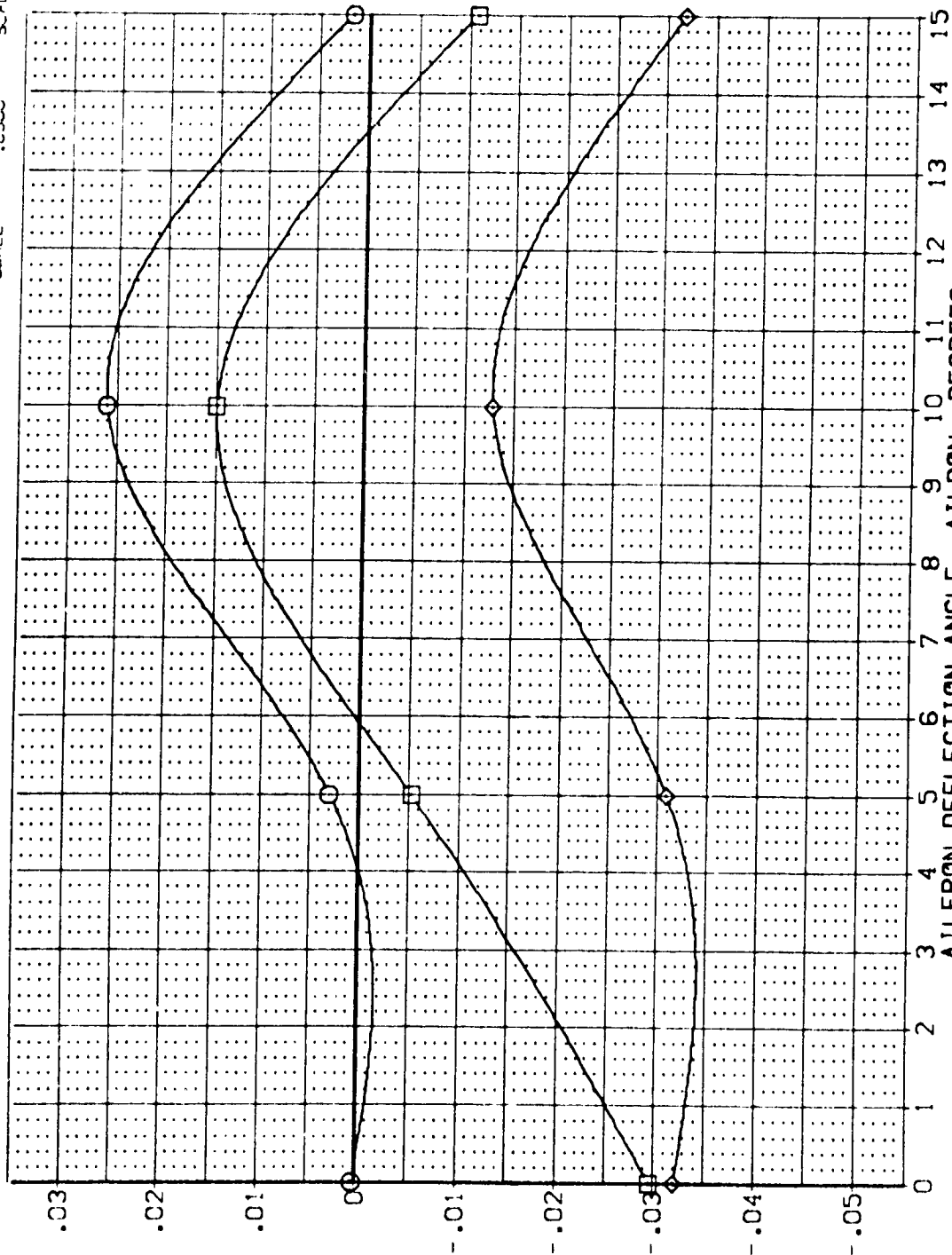


FIG. 43 EFFECT OF AILERON DEFLECTION ON BODYFLAP HINGEMOMENT

ARC 87-747 0A53C B C M F W I V NOM. RN/L (EEL006)

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION				
	ALPHA	MACH	BETA	AILERON	ELEV-L	ELEV-R	DATASET	ELEV-L	SREF	LREF	SC.FT.
○	.000	2.500	7.500	SPDRK	.000	15.000	EEL006	15.000	2.4210	14.2440	14.2440
□	10.000	7.500	SPDRK	ELEV-R	-7.500	15.000	EEL003	15.000	28.1004	32.8010	32.8010
◇	20.000	11.700	ELEV-R	ELEV-R	55.000	15.000	EEL003	15.000	.0000	.0000	.0000
									YMRP	ZMRP	SCALE
									11.2500	.0300	

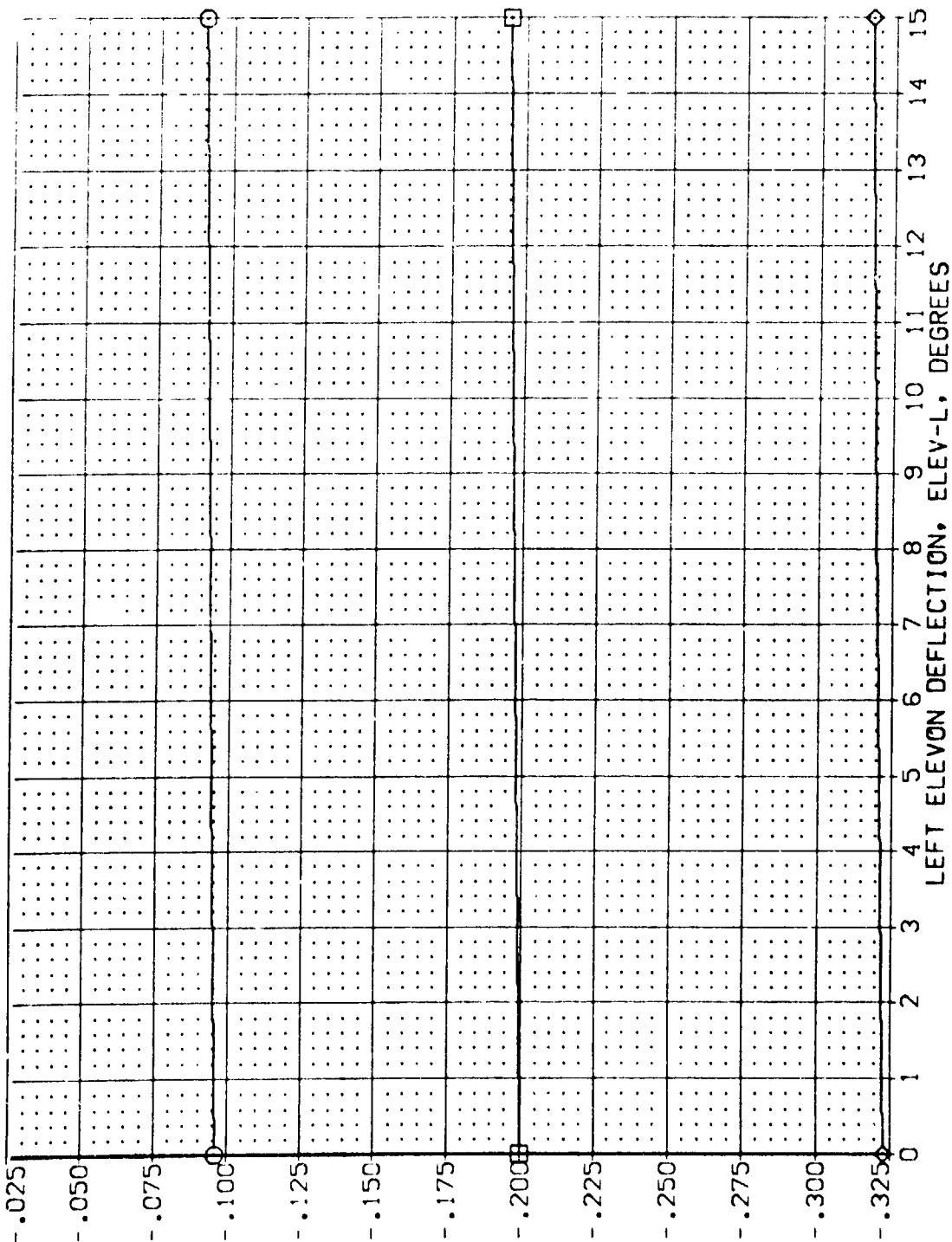


FIG. 44 AILERON INTERACTIONS, RIGHT ELEVON= 15 DEGREES



ARC 87-747 0A53C B C M F W I V NOM. RN/L (EEL006)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
□	.000	3.500	BETA	ELEV-L	SREF
□	10.000	7.500	AILRON	EEL003	LREF
□	20.000	-11.700	SPOBRK	EEL003	BREF
◇		.000	ELEV-R		XMRP
					YMRP
					ZMRP
					SCALE

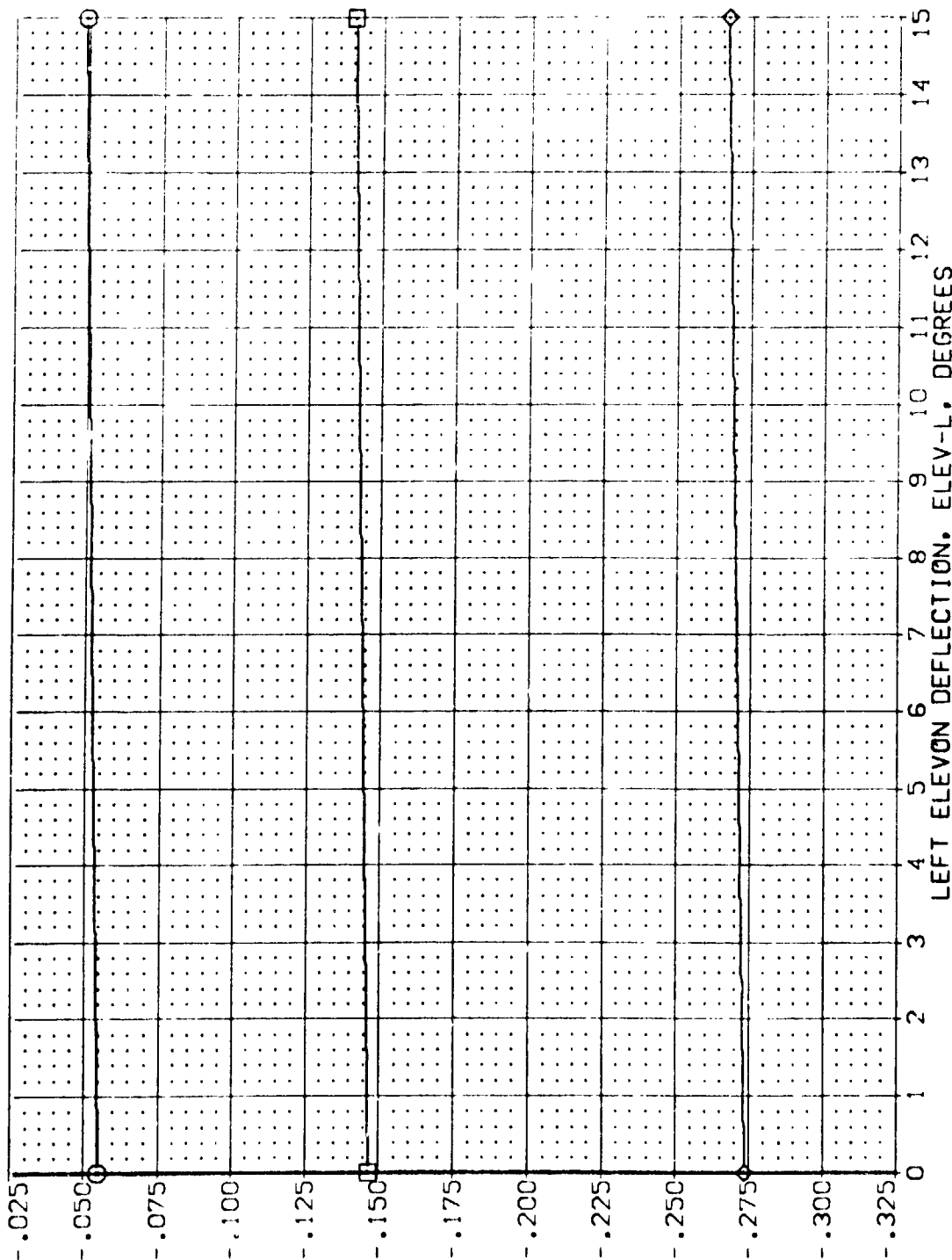
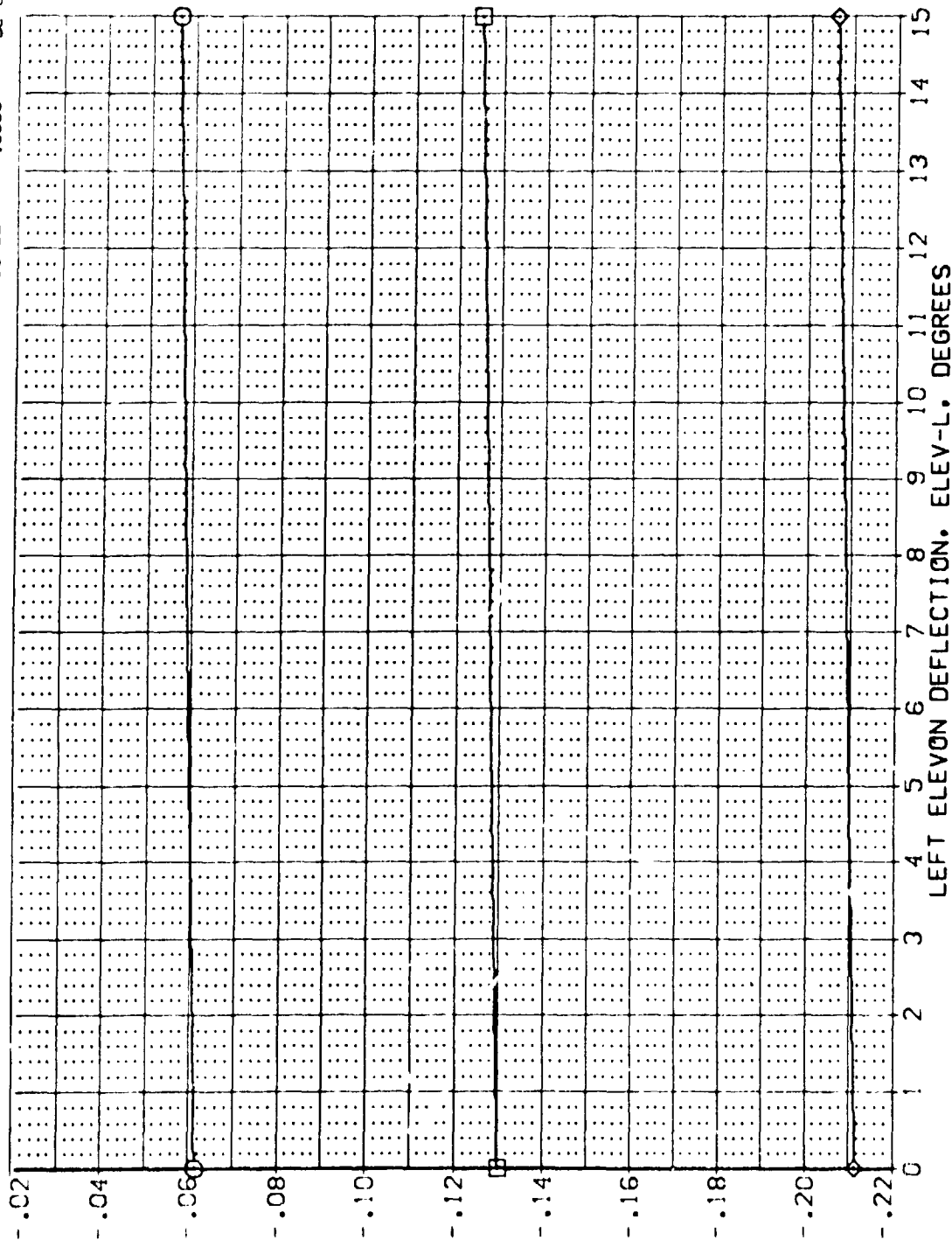


FIG. 44 AILERON INTERACTIONS, RIGHT ELEVON= 15 DEGREES

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL006)

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE	REFERENCE INFORMATION	
◇	.000	ELEVON	2.500	BETA	.000	DATASET	SREF
◇	10.000	BOFLAP	7.500	AILRON	.000	EEL003	LREF
◇	20.000	RUDDER	-11.700	SPOBRK	55.000		BREF
			.000	ELEV-R	15.000		XMRP
							YMRP
							ZMRP
							SCALE
							.0300



INBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHEI

FIG. 44 AILERON INTERACTIONS, RIGHT ELEVON= 15 DEGREES

ARC 87-747 0A53C B C M F W1 V NOM. RN/L [EEL006]

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	ELEV-L	ELEV-L	REF	SCALE
.000	3.000	BETA	.000	EEL006	EEL003	SREF	2.4210
10.000	7.500	AILRON	-7.500	EEL006	EEL003	LREF	14.2440
20.000	-11.700	SPOBRK	55.000	EEL006	EEL003	BREF	28.1000
		ELEV-R	15.000	EEL006	EEL003	XMRP	32.3010
				EEL006	EEL003	YMRP	11.2500
				EEL006	EEL003	ZMRP	11.2500
				EEL006	EEL003	SCALE	.0300

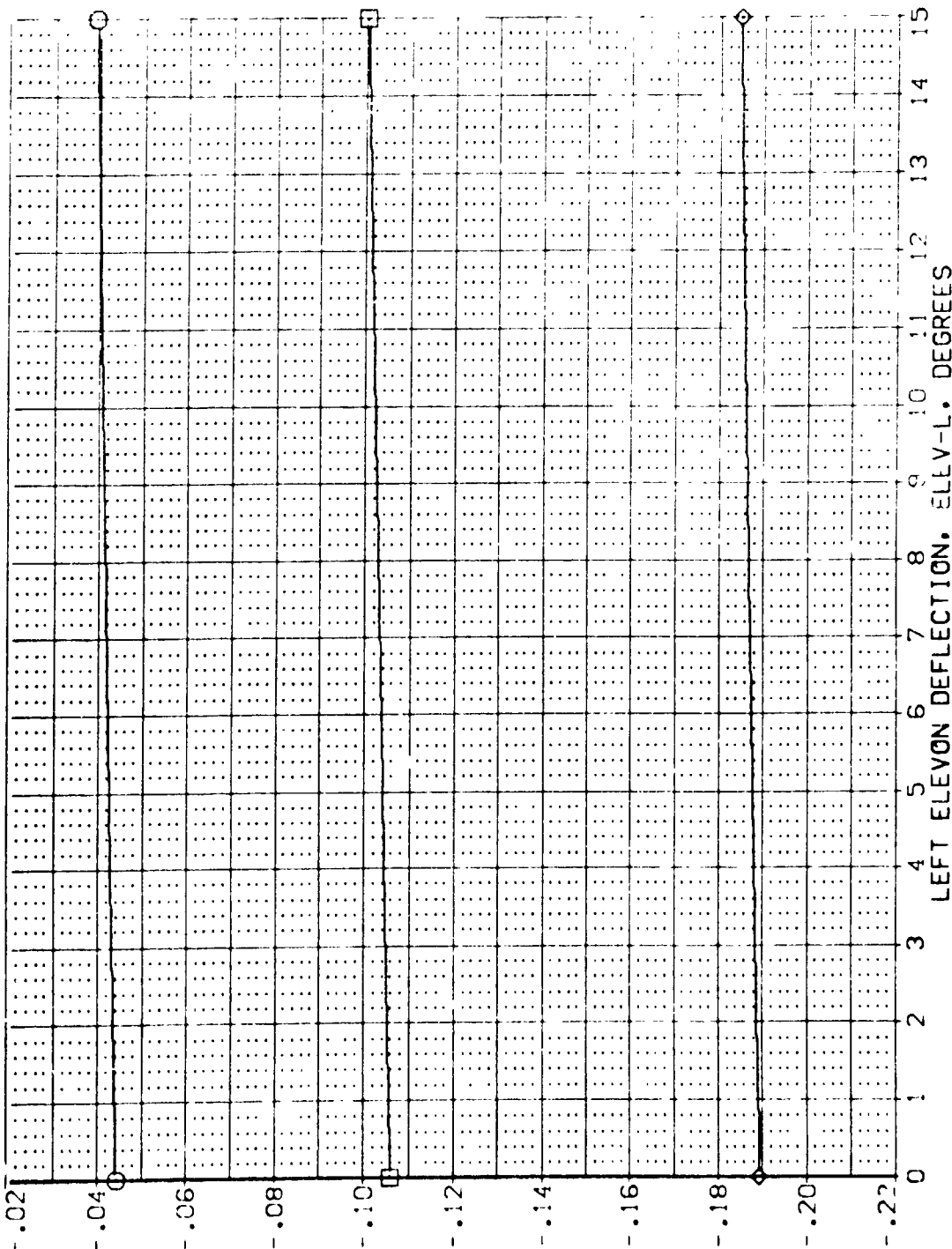


FIG. 44 AILERON INTERACTIONS, RIGHT ELEVON= 15 DEGREES

(90733)

70845

ALPHA  
10.000  
20.000

MACH  
ELEVON  
BDF LAP  
RJ JOER

PARAMETRIC VALUES	
BETA	3.500
ALPHA	7.500
SPOBPK	-11.700
ELEV-R	.000

	DATASET	DATA SOURCE
.000	ELEV-L	
-7.500	EEL006	.000
55.000		
15.000		

ELEV-L  
15.000  
SREF  
LREF  
BREF  
XMRP  
YMRP  
ZMRP  
SCA-E

REFERENCE INFORMATION

2.4210	SG.FT.
14.2440	IN.
28.1004	IN.
32.3010	IN.
0000	IN.
11.2500	IN.
0300	SCALE

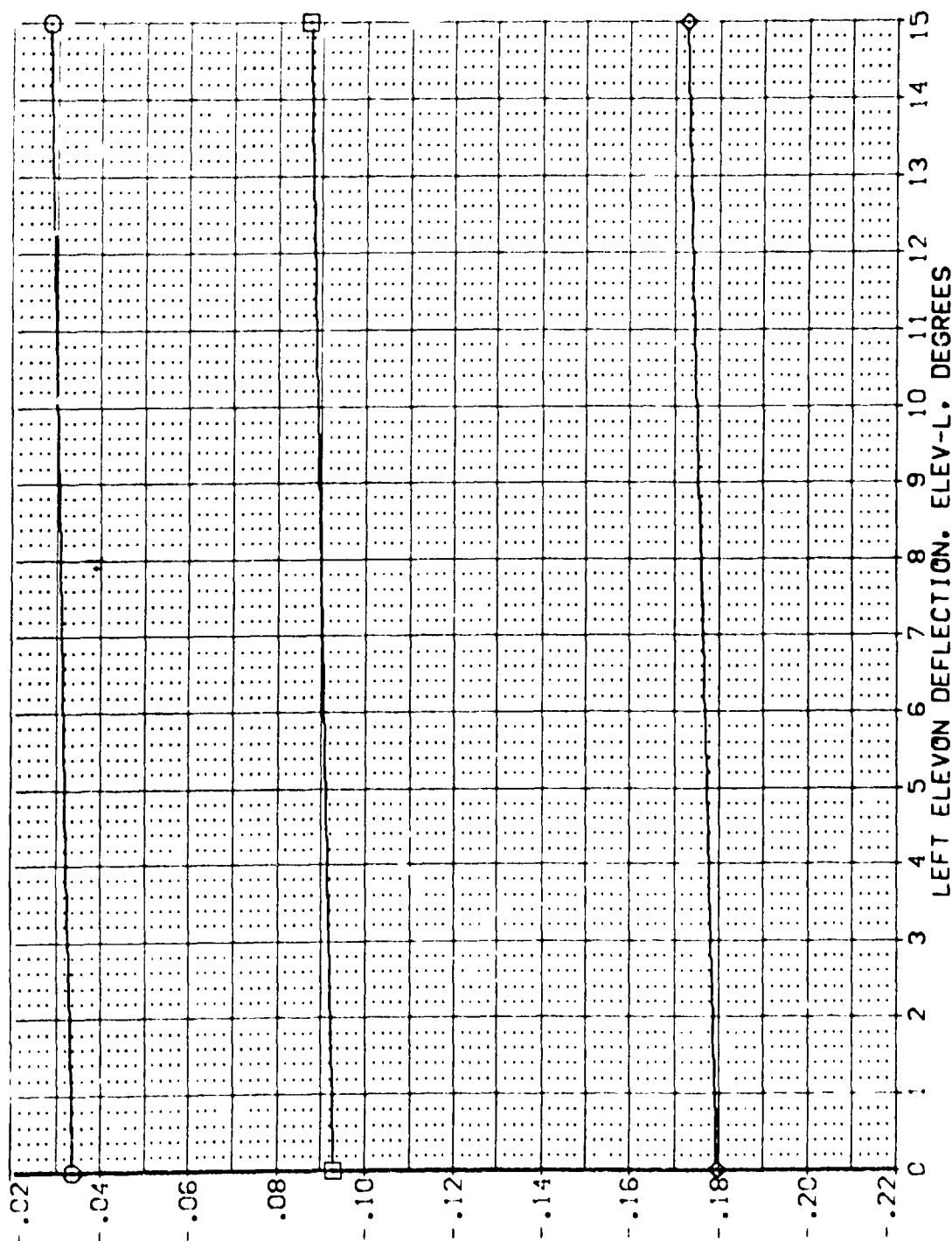


FIG. 44 AILERON INTERACTIONS, RIGHT ELEVON= 15 DEGREES



ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL006)

SYMBOL		PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	.000	MACH	2.500	BETA	.000	DATASET	ELEV-L	SREF	2.4210	SCALE	1.000
	10.000	ELEVON	7.500	AILRON	-7.500	EEL006	.000	REF	14.2410		
	20.000	BOFLAP	-11.700	SPOBKA	55.000			REF	28.1004		
		RUDER	.000	ELEV-R	15.000			YMAP	32.3010		
								ZMAP	11.7000		
								SCALE	.0000		

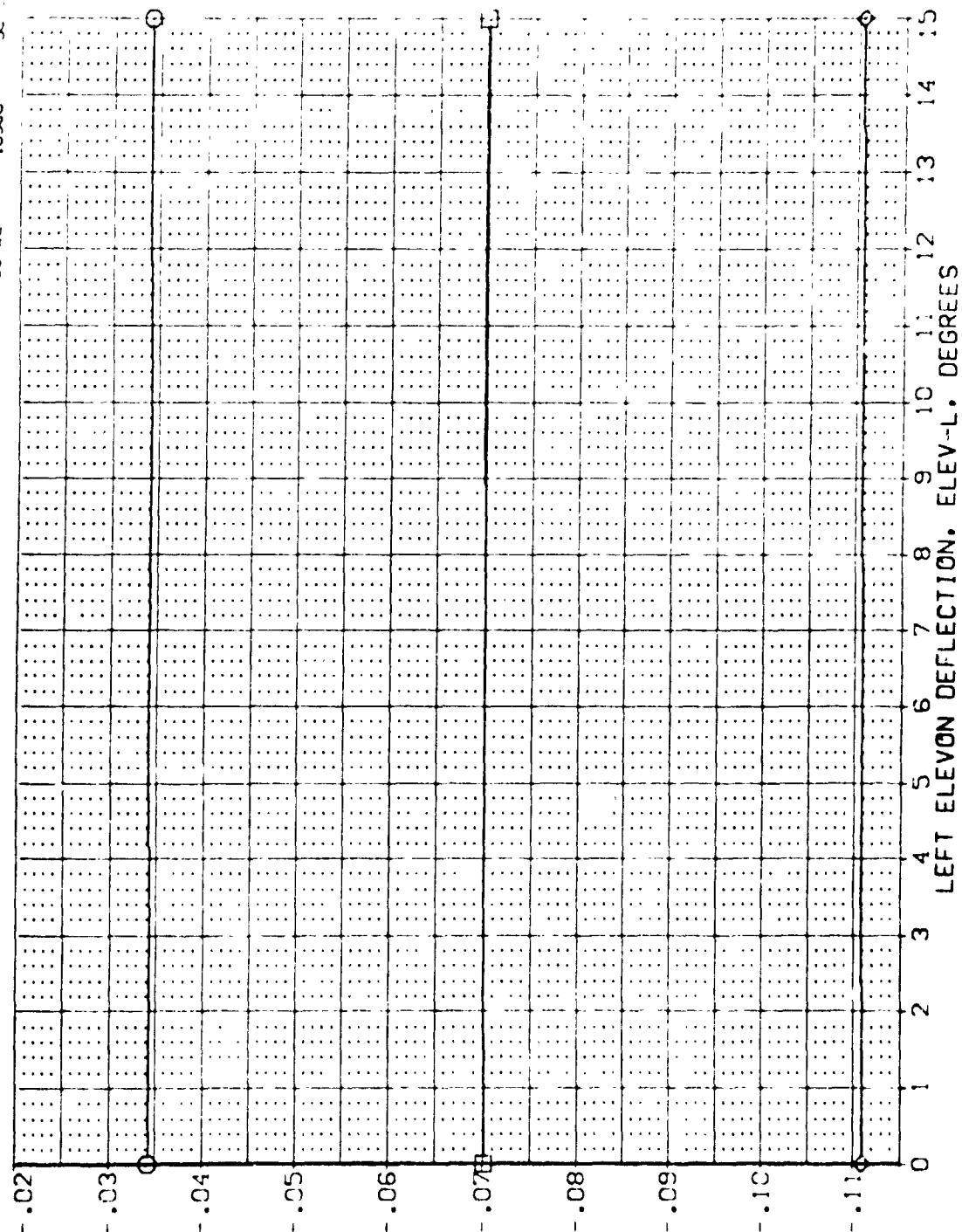


FIG. 44 AILERON INTERACTIONS, RIGHT ELEVON= 15 DEGREES

A/C 87-747 CA53C B C M F W I V NOM. RN/L (EEL006)

ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
.000		3.000	BETA	.000	ELEV-L	SREF	2.4210
10.000	ELEVON	7.500	AILERON	-7.500	EELC06	LREF	14.2440
20.000	BOFLAP	-11.700	SPOBRK	55.000		BREF	28.1004
	Rudder	.000	ELEV-R	15.000		XMRP	32.3010
						YMRP	.0000
						ZMRP	11.2500
						SCALE	.0300

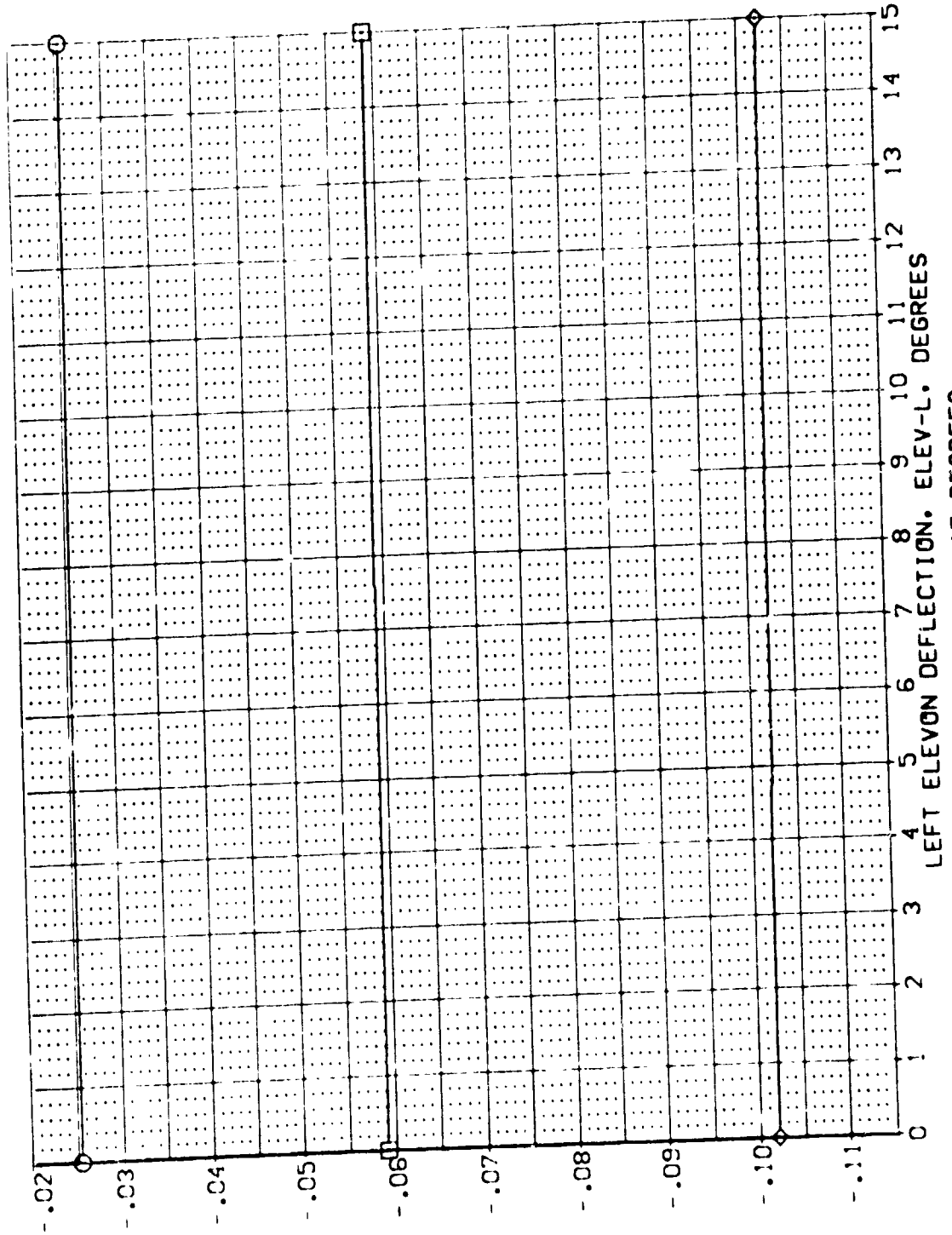


FIG. 44 AILERON INTERACTIONS. RIGHT ELEVON= 15 DEGREES

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL006)

ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
.000	MACH 3.500 BETA	ELEV-L	SREF 2.7210
10.000	ELEVON 7.500 AILERON	EEL006	LREF 4.7440
20.000	BDELAP -11.700 SPOBRK	.000	BRF 28.1004
	RUDDER .000 ELEV-R	55.000	YREF 32.3010
		15.000	ZREF .0000
			SCALE 11.2500
			SCALE .0300

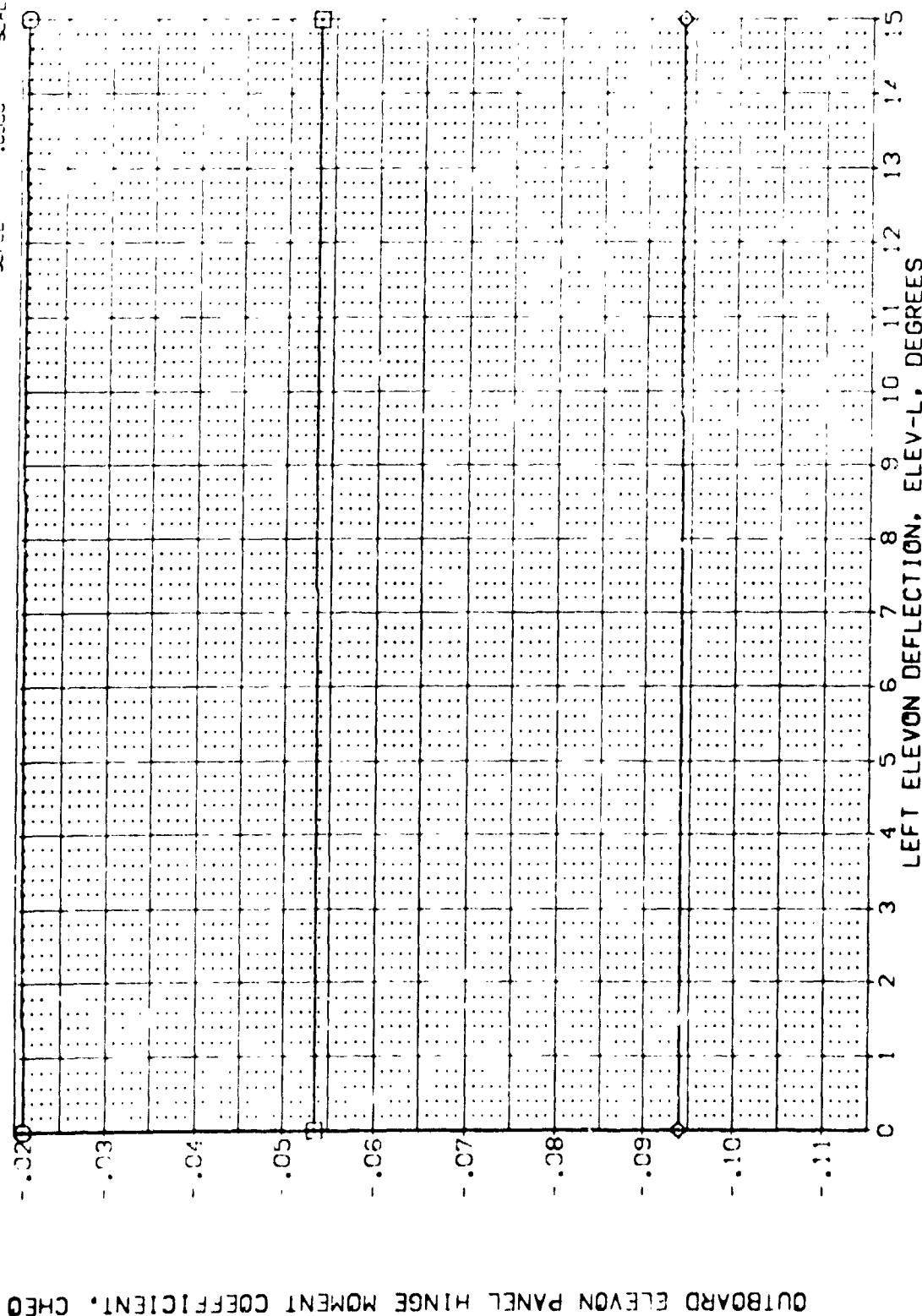


FIG. 44 AILERON INTERACTIONS, RIGHT ELEVON= 15 DEGREES



SYMBOL  
□  
□  
◇

ALPHA  
.000  
10.000  
20.000

MACH  
ELEVON  
BDFLAP  
RUDDER

PARAMETRIC VALUES  
3.000 BETA  
-10.000 AILRUN  
-11.700 SPOBRK  
.000 ELEV-R

DATA SOURCE  
ELEV-L  
.000  
10.000 EEL021  
55.000  
-20.000

DATASET  
EEL019  
EEL021

ELEV-L  
-20.000  
ELEV-R  
-20.000

REFERENCE INFORMATION  
2.421C  
14.241C  
28.1001  
37.3010  
11.7500  
SCALE  
.0300

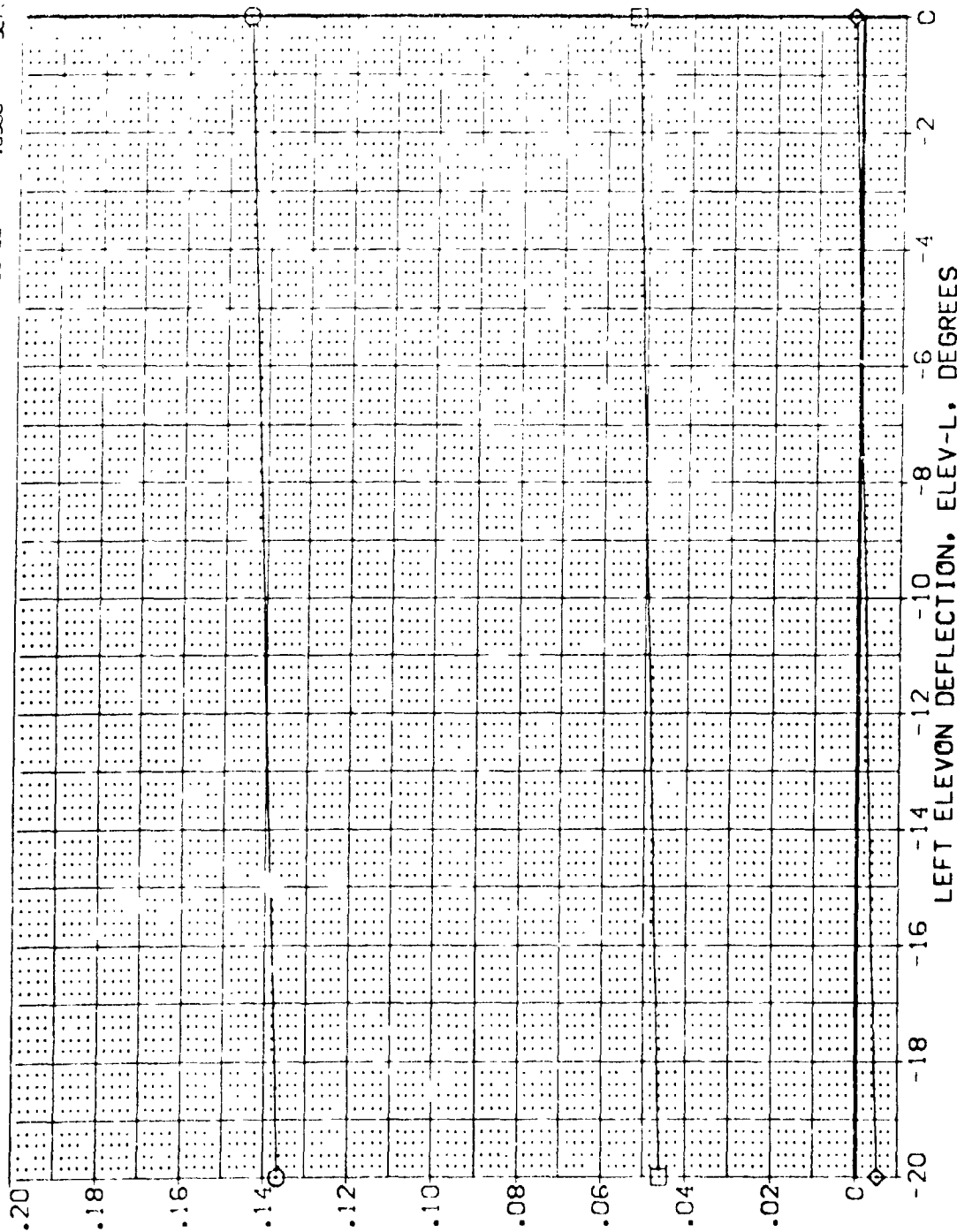


FIG. 45 AILERON INTERACTIONS, RIGHT ELEVON=-20 DEGREES

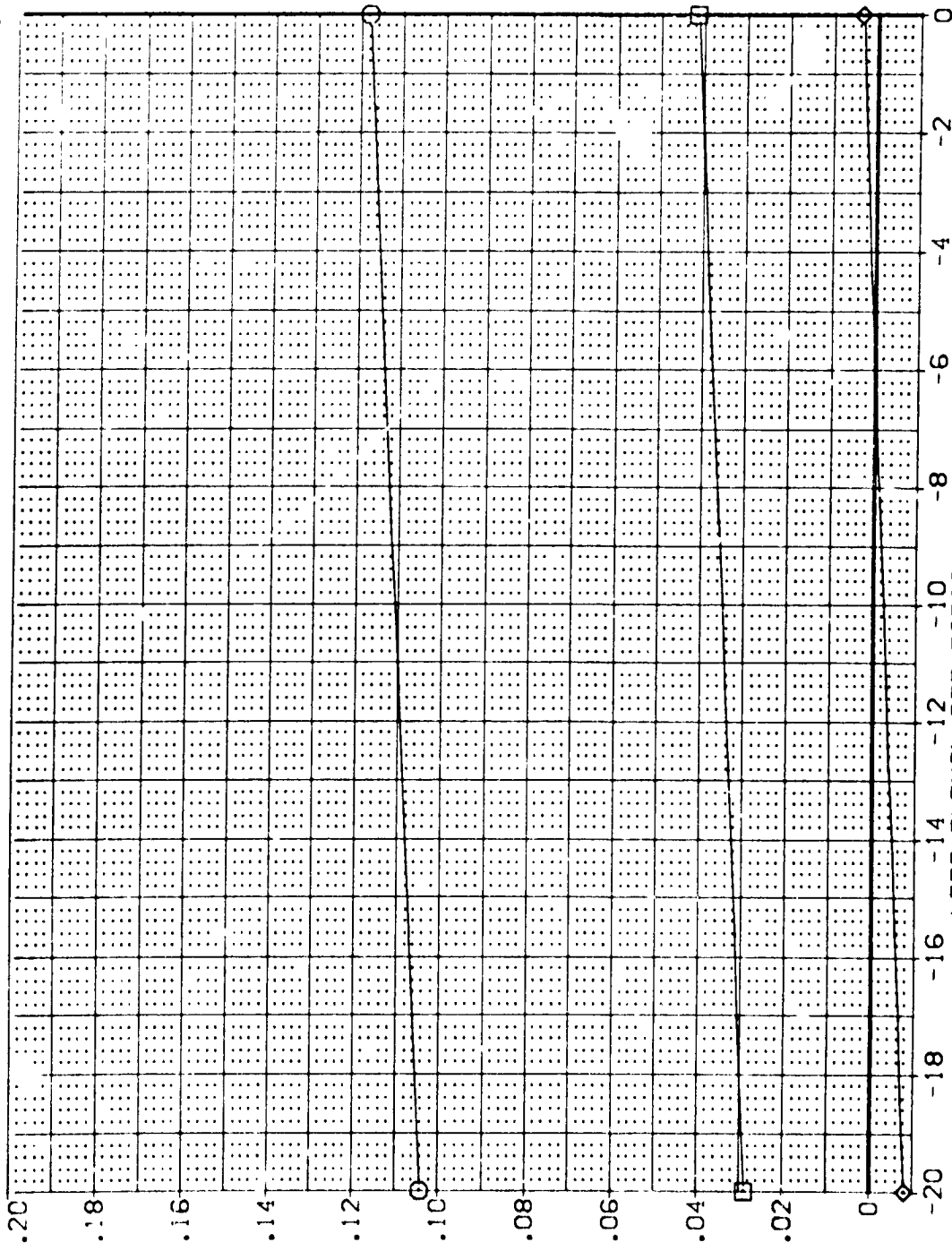
SYMBOL

ALPHA  
.000  
10.000  
20.000

PARAMETRIC VALUES  
MACH 3.500  
ELEVON -10.000  
BOFLAP -11.700  
RUDDER .000

DATA SOURCE  
DATASET EEL021  
ELEV-L .000  
ELEV-R -20.000

REFERENCE INFORMATION  
SREF 2.4210  
LREF 14.2440  
BREF 28.1004  
YMRP 32.3610  
ZMRP .0000  
SCALE 11.2500  
SCALE .0300



TOTAL ELEVON HINGE MOMENT COEFFICIENT, CMET

FIG. 45 AILERON INTERACTIONS, RIGHT ELEVON=-20 DEGREES  
LEFT ELEVON DEFLECTION, ELEV-L, DEGREES

SYMBOL  
○ □ ◇

ALPHA  
.000  
10.000  
20.000

MACH  
ELEVON  
BOFLAP  
RUDDER

PARAMETRIC VALUES  
2.500  
-10.000  
-11.700  
.000

BETA  
AILERON  
SPOBRK  
ELEV-R

.000  
10.000  
55.000  
-20.000

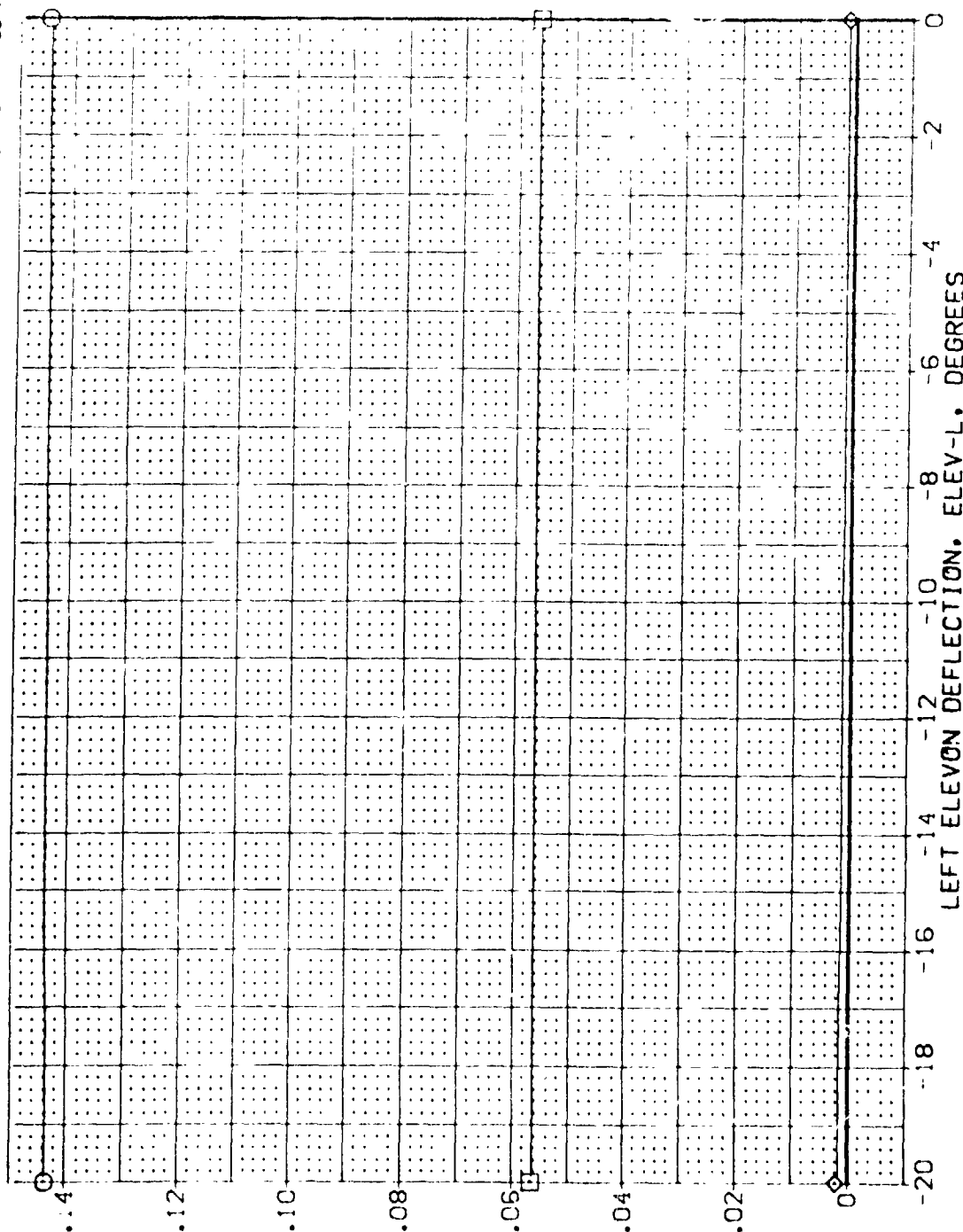
DATA SOURCE  
ELEV-L  
.000

DATASET  
EEL021

ELEV-L  
-20.000

DATASET  
EEL019

REFERENCE INFORMATION  
SREF 7.4210  
LREF 14.2440  
BREF 28.1000  
XMRD 32.3010  
YMRD .0000  
ZMRD 11.2500  
SCALE .0300



INBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHEI

LEFT ELEVON DEFLECTION, ELEV-L, DEGREES

FIG. 45 AILERON INTERACTIONS, RIGHT ELEVON=-20 DEGREES

SYMBOL		PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	MACH	3.000	BETA	.000	DATASET	ELEV-L	SREF	2.4210	SQ.FT.		
.000	ELEVON	-10.000	AILERON	10.000	EEL021	.000	LREF	14.2440	N.		
10.000	BOFLAP	-11.700	SPOORX	55.000			BREF	28.1004	N.		
20.000	RJODER	.000	ELEV-R	-20.000			XMRP	32.3010	N.		
							YMRP	.0000	N.		
							ZMRP	11.2500	N.		
							SCALE	.0300	SCALE		

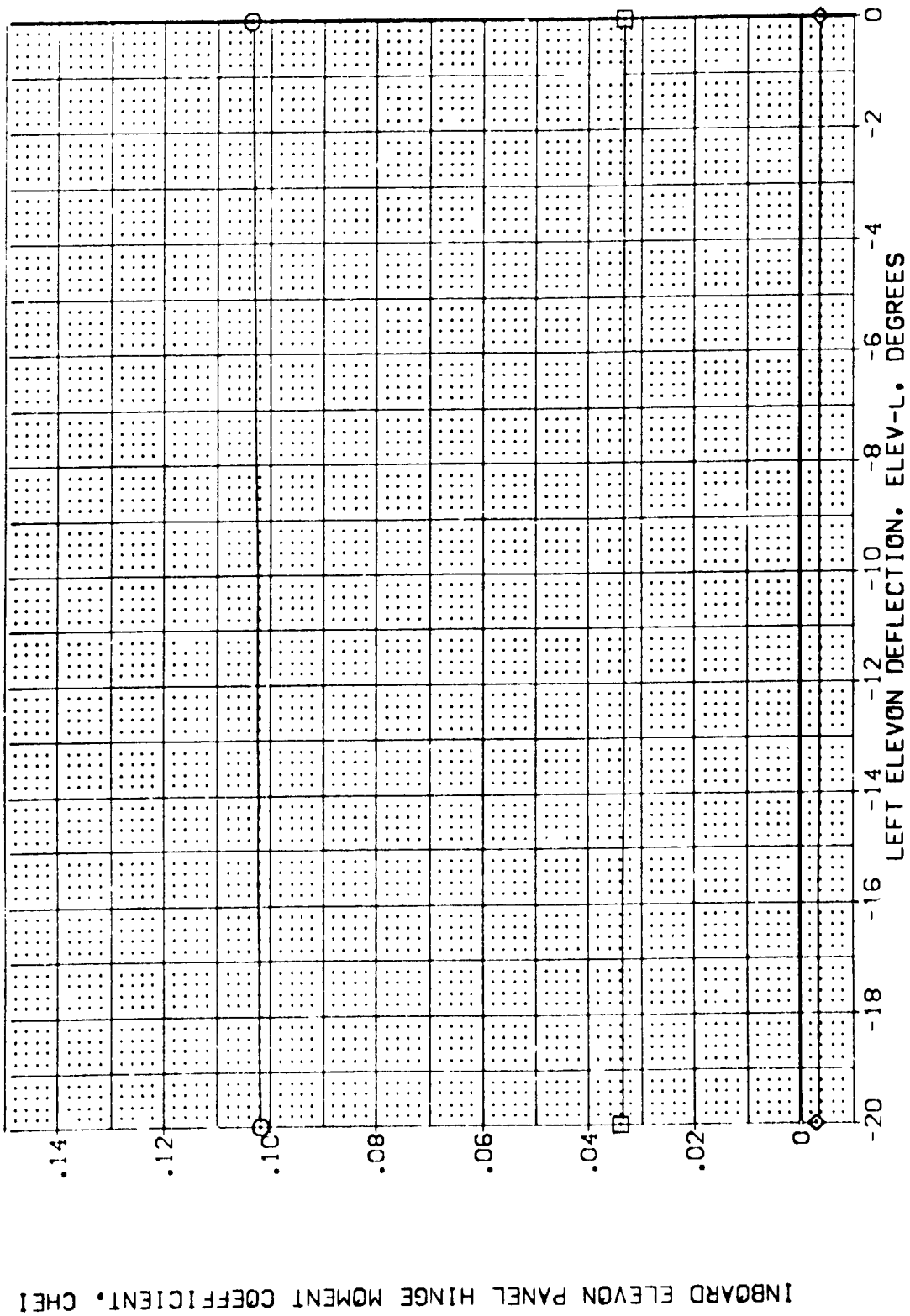


FIG. 45 AILERON INTERACTIONS, RIGHT ELEVON=-20 DEGREES



INBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHEI

ALPHA  
.000  
10.000  
20.000

MACH  
ELEVON  
BOFLAP  
RUDDER

PARAMETRIC VALUES  
3.500 BETA  
-10.000 AILRON  
-11.700 SPOBRK  
.000 ELEV-R

DATA SOURCE  
DATASET  
EEL021  
10.000  
55.000  
-20.000

ELEV-L  
.000

DATASET  
EEL019

ELEV-L  
-20.000

SREF  
LREF  
BREF  
XPRP  
YPRP  
ZPRP  
SCALE

REFERENCE INFORMATION  
2.4210 SC.F.T.  
14.2440  
28.1004  
32.3010  
11.7500  
1.0300

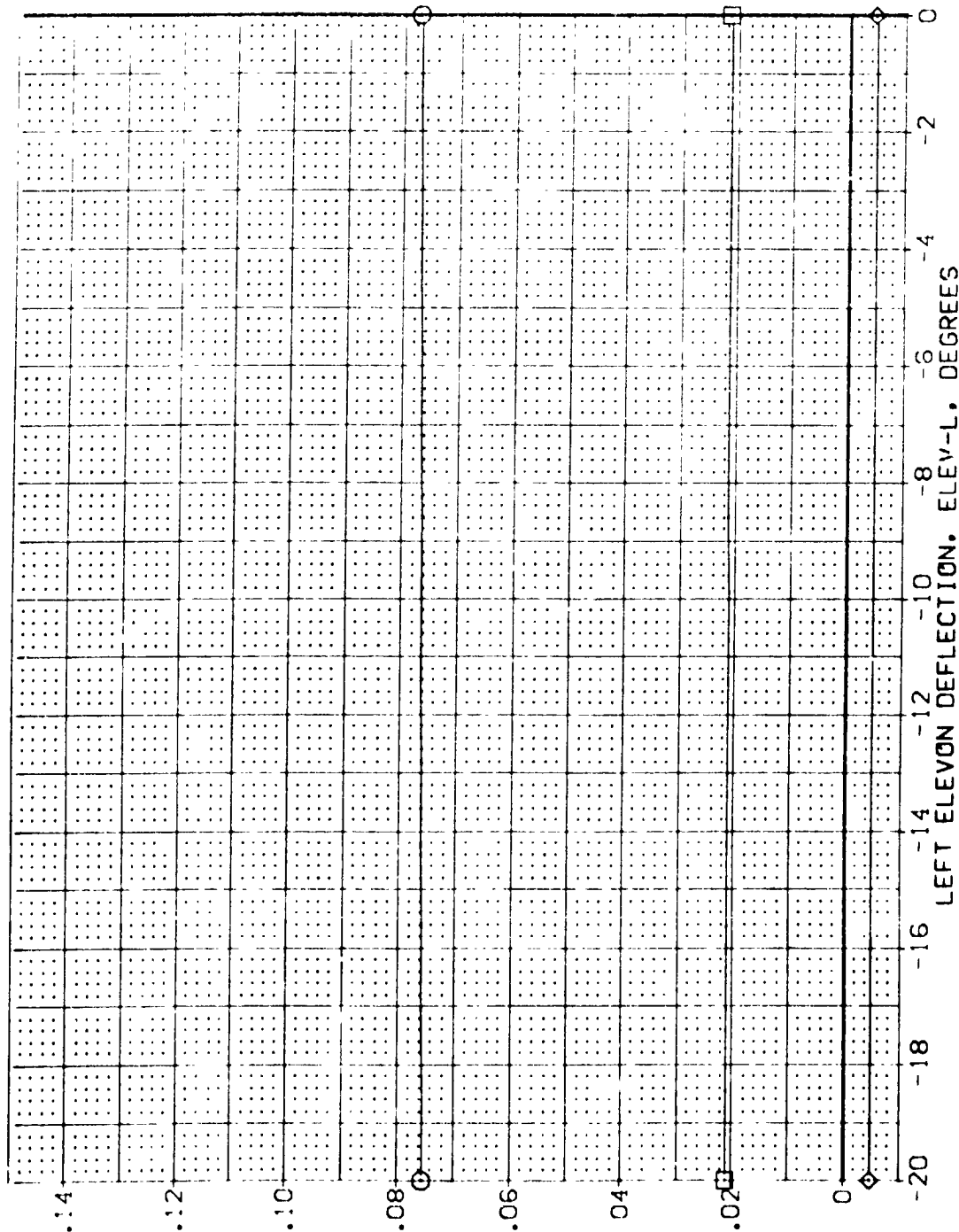


FIG. 45 AILERON INTERACTIONS, RIGHT ELEVON=-20 DEGREES

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (EEL021)

SYMBOL		PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
ALPHA	.000	MACH	2.500	BETA	.000	DATASET	ELEV-L	.000	ELEV-L	SREF	SO.FT.
10.000	10.000	ELEVON	-10.000	AILRON	10.000	EEL021			-20.000	LR.F	14.240
20.000	20.000	BOFLAP	-11.700	SPDRK	55.000					BR.F	28.100
		RUDER	.000	ELEV-R	-20.000					Y-PR	32.300
										Z-PR	.000
										ZMRD	11.250
										SCALE	.0300

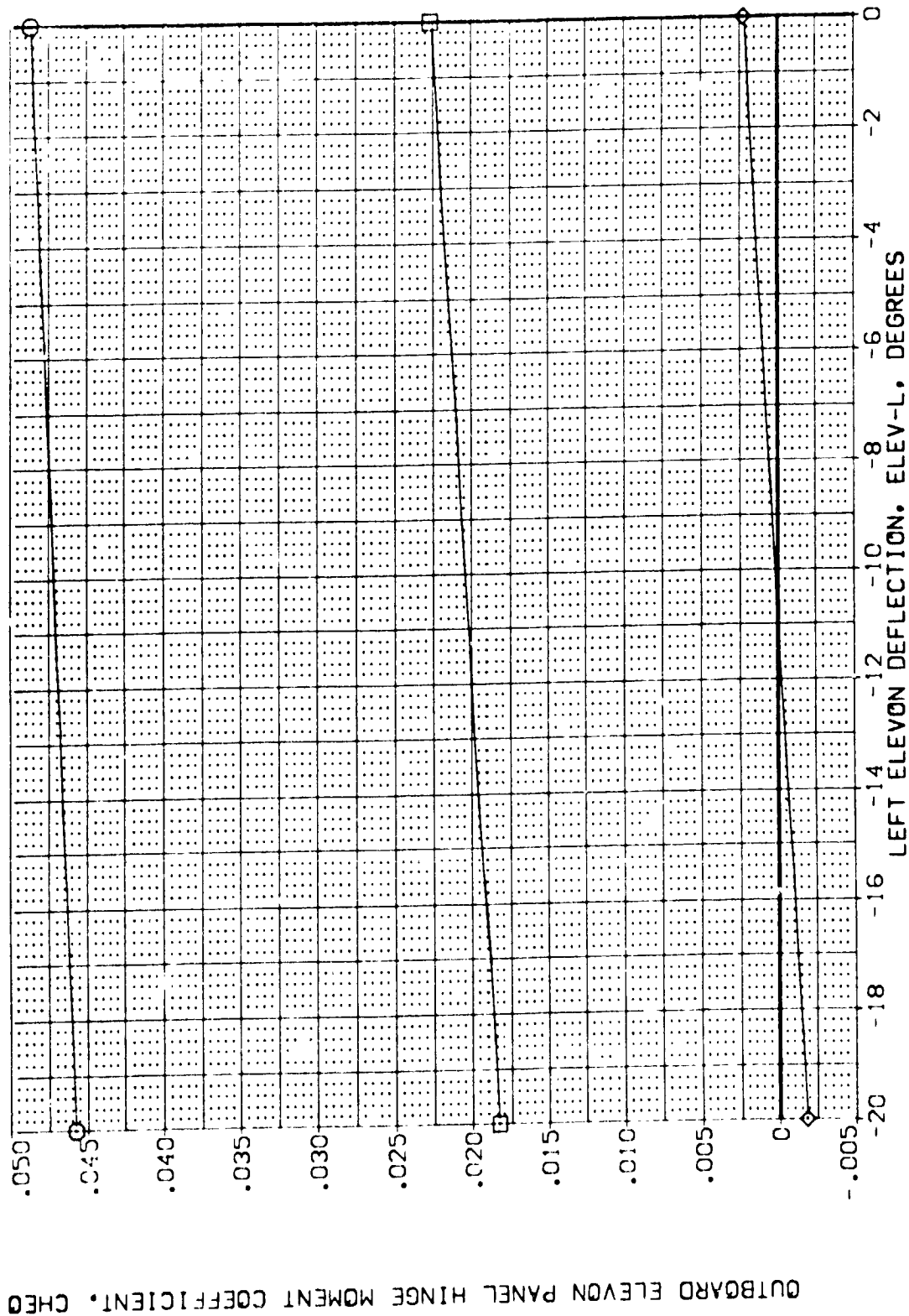


FIG. 45 AILERON INTERACTIONS, RIGHT ELEVON=-20 DEGREES

ARC 67-747 0A53C B C M F W1 V NOM. RN/L (EEL021)

ALPHA	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
.000	3.000	BETA	ELEV-L	SREF
10.000	-10.000	AILERON	.000	LRX
20.000	-11.700	SPDBK	10.000	BRX
		ELEV-R	56.000	YPRD
			-20.000	YPRD
				ZPRD
				SCALE
				11.7500
				1.0000

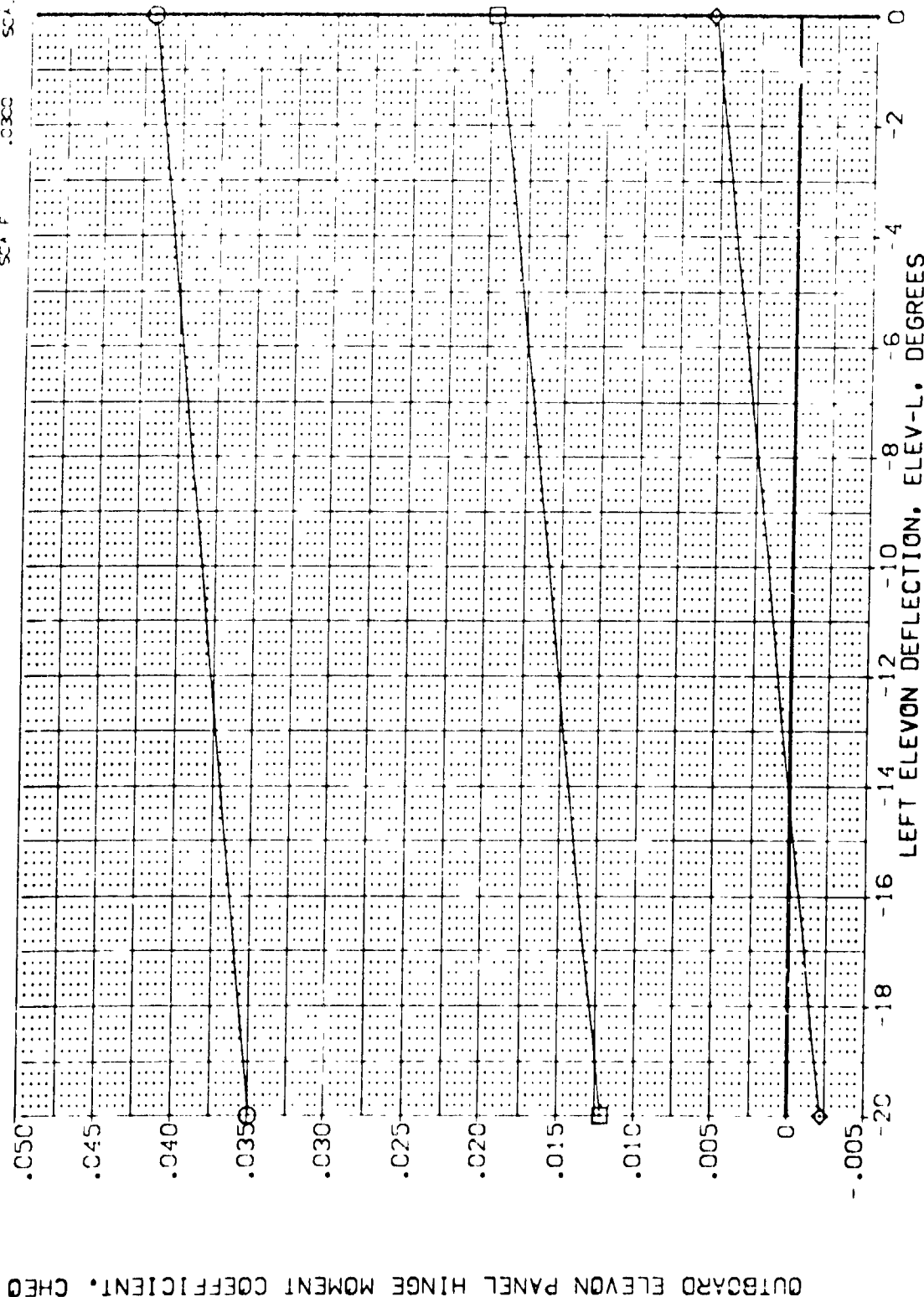


FIG. 45 AILERON INTERACTIONS, RIGHT ELEVON=-20 DEGREES

ARC 67-747 0A53C B C M F W1 V NOM. RN/L (EEL021)

SYMBOL  
◇ □ ○

ALPHA  
.000  
10.000  
20.000

PARAMETRIC VALUES  
MACH 3.500  
ELEVON -10.000  
BOFLAP -11.700  
RUDDER .000

BETA  
AILRON  
SPDRK  
ELEV-R

DATA SOURCE  
ELEV-L  
.000  
10.000  
55.000  
-20.000

REFERENCE INFORMATION  
SREF 2.4210  
LREF 14.2440  
BOXE 28.1004  
XMRD 32.3010  
YMRD .0000  
ZMRD 11.2500  
SCALE .0300

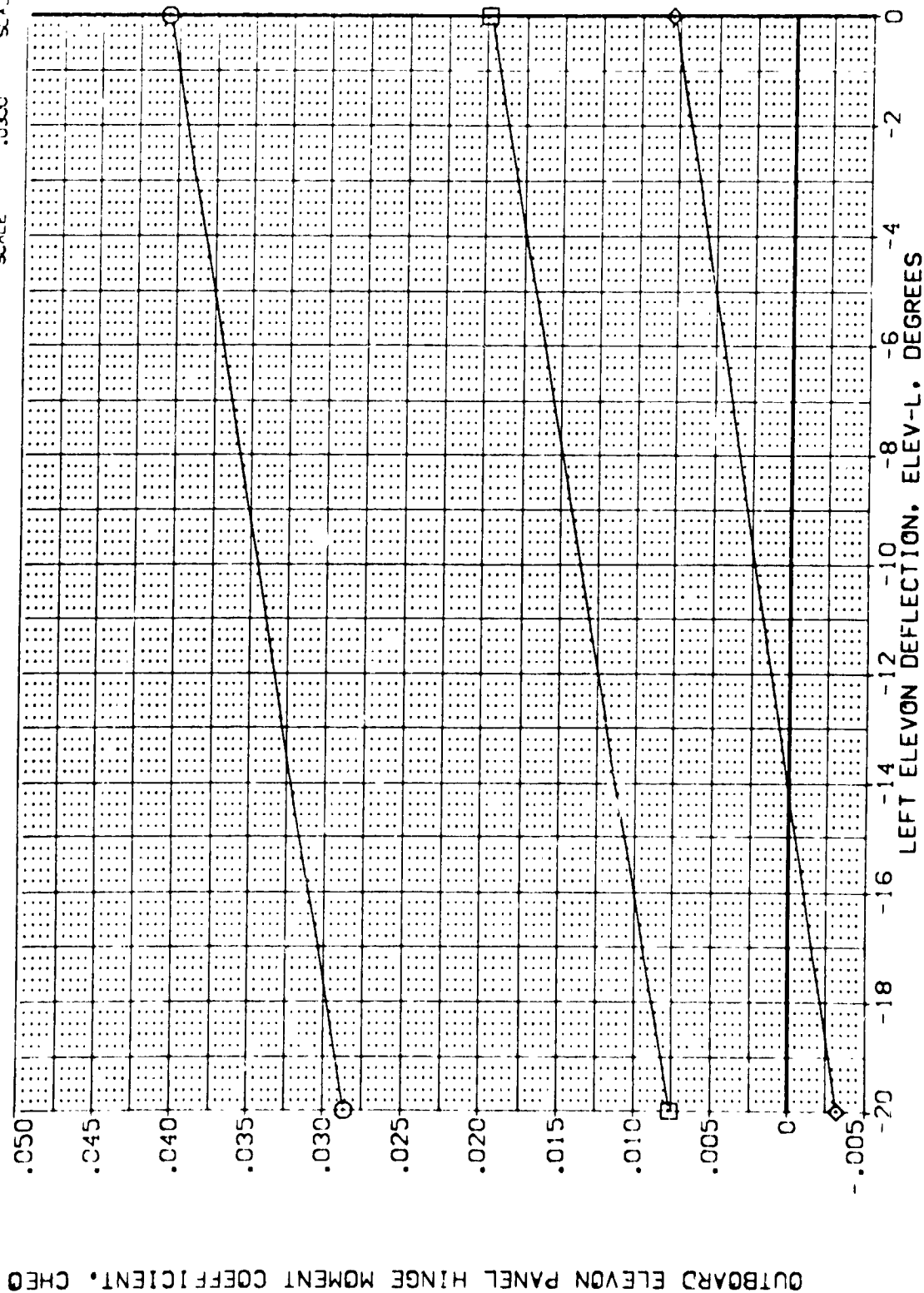
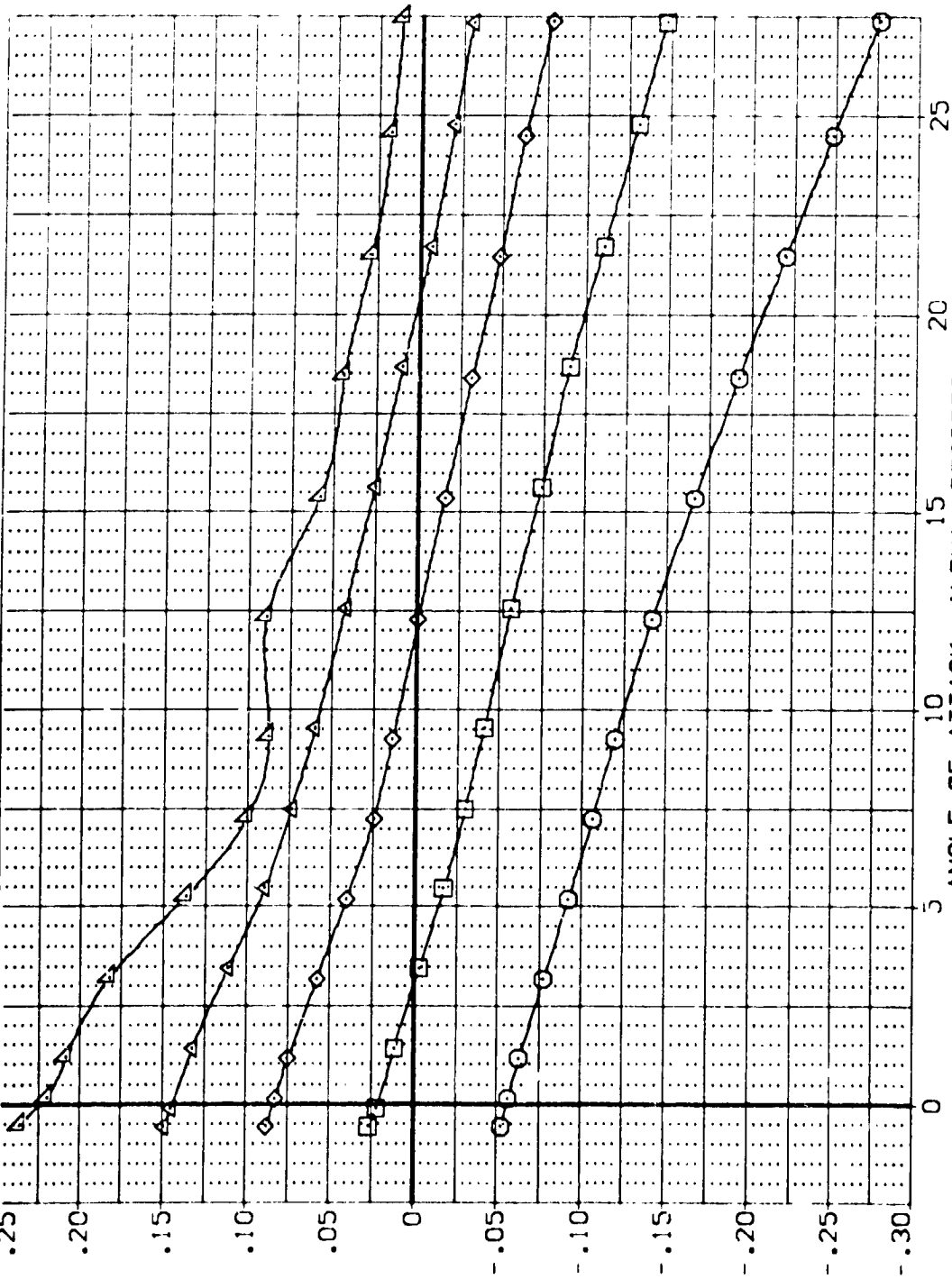


FIG. 45 AILERON INTERACTIONS, RIGHT ELEVON=-20 DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ELEVON	AILTRON	BOLAP	SPOBRK	REFERENCE INFORMATION
[YEL003]	ARC 87-747 DASSC B C M F VI V	NO.	RV/L	15.000	.000	-11.700	55.000	SREF 2.4210 SC.FT.
[YEL001]	ARC 87-747 DASSC B C M F VI V	NO.	RV/L	.000	.000	-11.700	55.000	LREF 14.2440
[YEL002]	ARC 87-747 DASSC B C M F VI V	NO.	RV/L	-10.000	.000	-11.700	55.000	BREF 28.1000
[YEL019]	ARC 87-747 DASSC B C M F VI V	NO.	RV/L	-20.000	.000	-11.700	55.000	XMRP 32.3010
[YEL023]	ARC 87-747 DASSC B C M F VI V	NO.	RV/L	-40.000	.000	-11.700	55.000	YMRP 11.2000
								ZMRP .0300
								SCALE



INBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHEI

FIG. 46 ELEVON PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK

(A)MAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ELEVON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VE003)	ARC 87-747 OAS3C B C M F VI V	NO.	RV/L	15.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(VE001)	ARC 87-747 OAS3C B C M F VI V	NO.	RV/L	10.000	.000	-11.700	55.000	LREF 14.2440
(VE002)	ARC 87-747 OAS3C B C M F VI V	NO.	RV/L	-10.000	.000	-11.700	55.000	BR-F 28.1004
(VE009)	ARC 87-747 OAS3C B C M F VI V	NO.	RV/L	-20.000	.000	-11.700	55.000	XRPP 32.3010
(VE023)	ARC 87-747 OAS3C B C M F VI V	NO.	RV/L	-40.000	.000	-11.700	55.000	YMRP 11.2500
								SCALE .0300

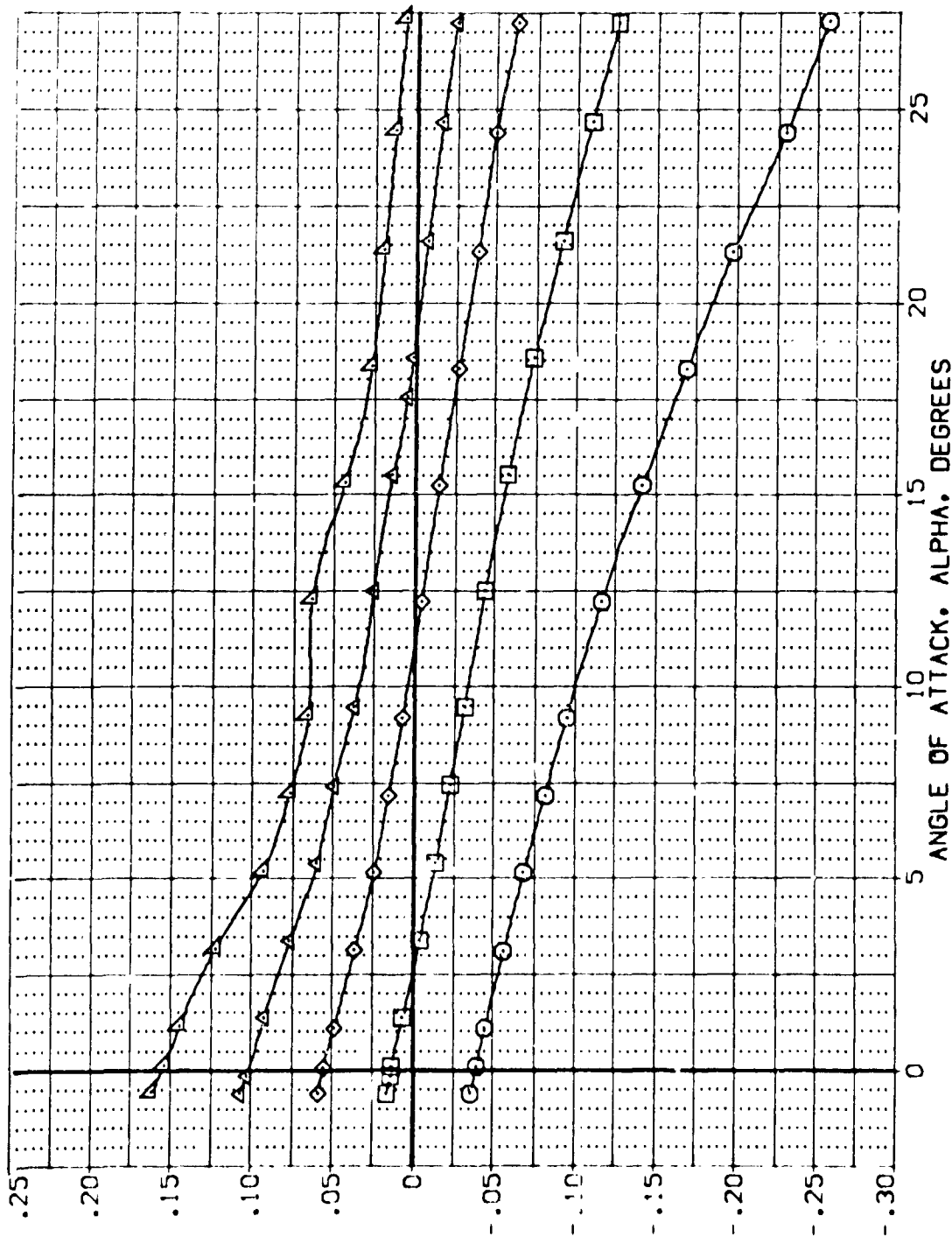


FIG. 46 ELEVON PANEL HINGEMENTS VERSUS ANGLE OF ATTACK

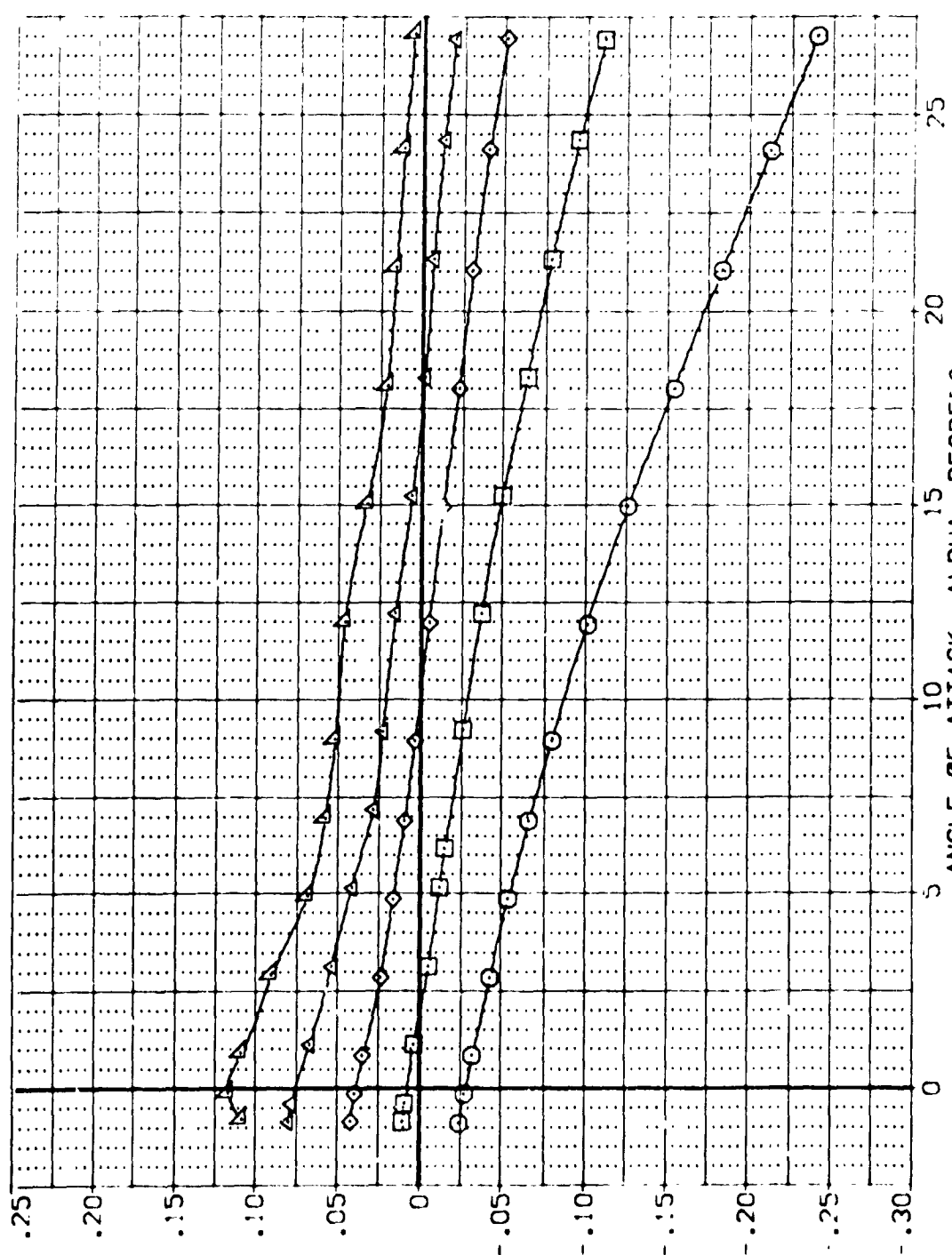
(33)MAC = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION: NOM. RV/L

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOM.	RV/L
[YEL003]	ARC 87-747 OAS3C B C M F V	V	
[YEL011]	ARC 87-747 OAS3C B C M F V	V	
[YEL003]	ARC 87-747 OAS3C B C M F V	V	
[YEL019]	ARC 87-747 OAS3C B C M F V	V	
[YEL023]	ARC 87-747 OAS3C B C M F V	V	

ELEVON AILRON BOFLAP SPOBRK REFERENCE INFORMATION SC.F.T.

ELEVON	AILRON	BOFLAP	SPOBRK	REFERENCE INFORMATION	SC.F.T.
15.000	.000	-11.700	55.000	SRFF	2.4210
.000	.000	-11.700	55.000	R/F	14.2440
-10.000	.000	-11.700	55.000	BRFF	28.1004
-20.000	.000	-11.700	55.000	XRFF	32.3010
-40.000	.000	-11.700	55.000	YMRD	.0000
				ZMRD	11.2500
				SCALE	.0300



INBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHEI

ANGLE OF ATTACK, ALPHA, DEGREES

FIG. 46 ELEVON PANEL HINGEMENTS VERSUS ANGLE OF ATTACK

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NON.	RU/L	ELEVON	AILERON	BOFLAP	SPD BRK	REFERENCE INFORMATION
003	ARC 87-747 CAS3C B C M F V I V	NON.	RU/L	15.000	.003	-11.700	55.000	SRF 2.4210 SQ.FT.
004	ARC 87-747 CAS3C B C M F V I V	NON.	RU/L	10.000	.003	-11.700	55.000	SRF 14.2440
005	ARC 87-747 CAS3C B C M F V I V	NON.	RU/L	-10.000	.003	-11.700	55.000	SRF 28.0004
006	ARC 87-747 CAS3C B C M F V I V	NON.	RU/L	-20.000	.003	-11.700	55.000	SRF 32.0010
007	ARC 87-747 CAS3C B C M F V I V	NON.	RU/L	-40.000	.003	-11.700	55.000	SRF 11.7000
								SCALE 1.0000

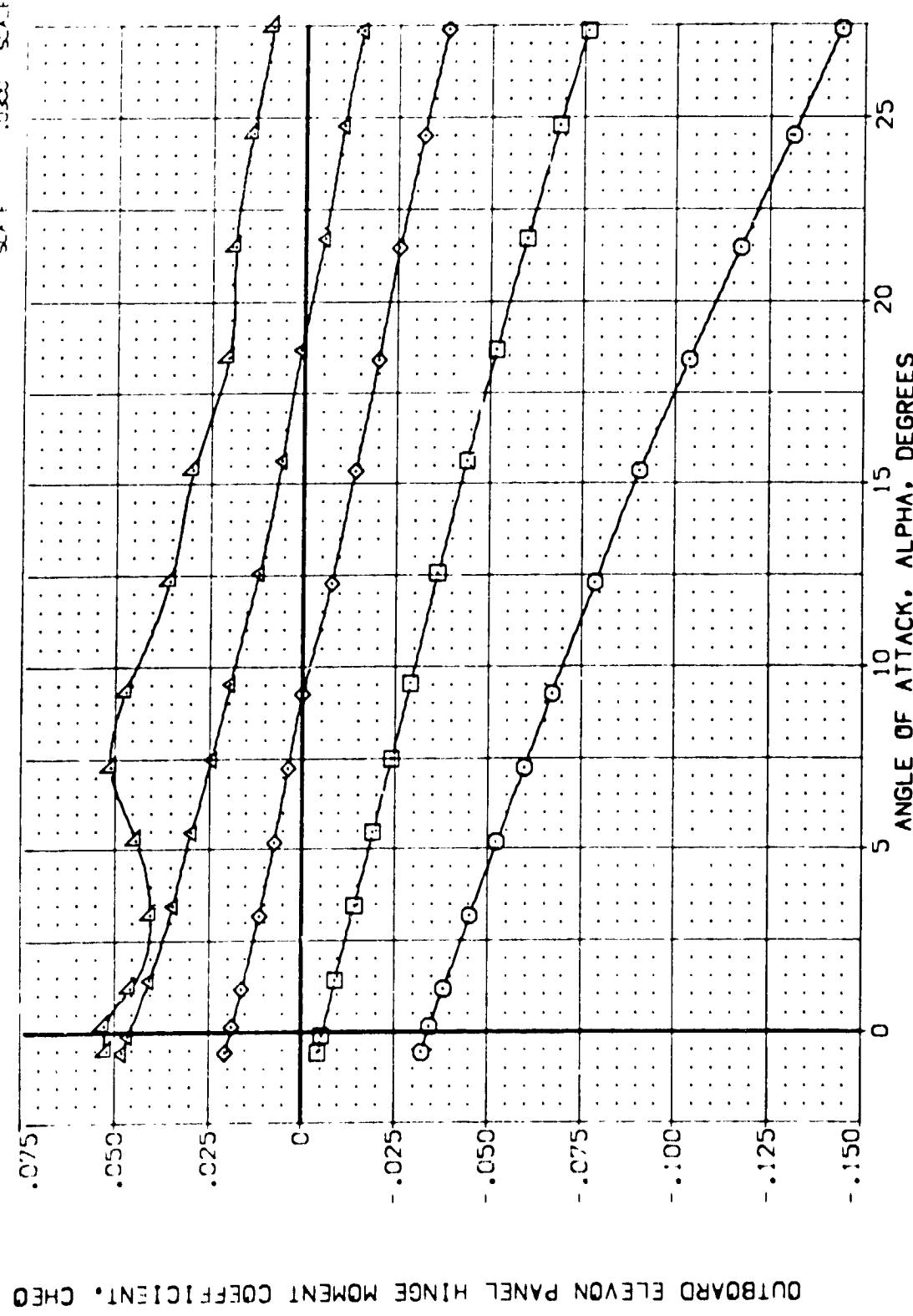


FIG. 46 ELEVON PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK

(A)MAC = 2.50



DATA SET SYMBOL: [VEL003] [VEL011] [VEL023] [VEL029] [VEL023]

CONFIGURATION DESCRIPTION: ARC 87-747 OAS3C B C M F V1 V NOM: RN/L ARC 87-747 OAS3C B C M F V1 V NOM: RN/L ARC 87-747 OAS3C B C M F V1 V NOM: RN/L ARC 87-747 OAS3C B C M F V1 V NOM: RN/L

ELEVON: 15.000 .000 .000 .000 .000

AIRLON: .000 .000 .000 .000 .000

BOFLAP: -11.700 -11.700 -11.700 -11.700 -11.700

SPOBARK: 55.000 55.000 55.000 55.000 55.000

REFERENCE INFORMATION: SREF: 2.4210 SQ.FT. LREF: 14.2440 N. BREF: 28.004 N. YMRP: 37.3010 N. ZMRP: 11.2500 N. SCALE: .0300

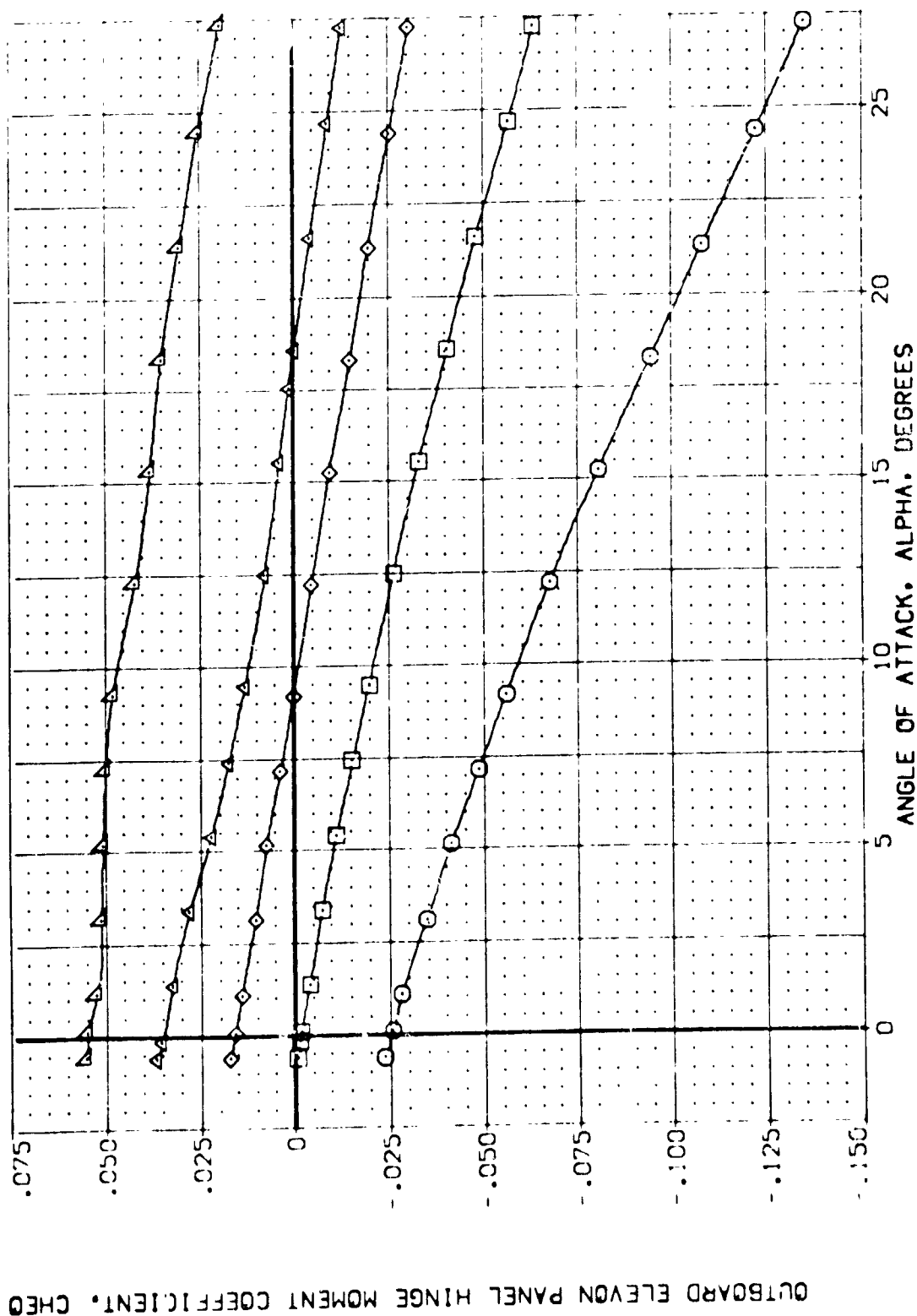


FIG. 46 ELEVON PANEL HINGEMENTS VERSUS ANGLE OF ATTACK

(B)MAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NO.	RV/L	ELEVON	AILERON	BOFLAP	SPDBRK	REFERENCE INFORMATION
ARC 87-747	BASIC B C M F VI	V	NO.	15.000	.000	-11.700	55.000	SRF 2.4210 SC.F.
ARC 87-747	CASIC B C M F VI	V	NO.	.000	.000	-11.700	55.000	SRF 14.2440 SC.F.
ARC 87-747	CASIC B C M F VI	V	NO.	-10.000	.000	-11.700	55.000	SRF 28.1004 SC.F.
ARC 87-747	CASIC B C M F VI	V	NO.	-20.000	.000	-11.700	55.000	SRF 32.3010 SC.F.
ARC 87-747	CASIC B C M F VI	V	NO.	-40.000	.000	-11.700	55.000	SRF 11.2500 SC.F.

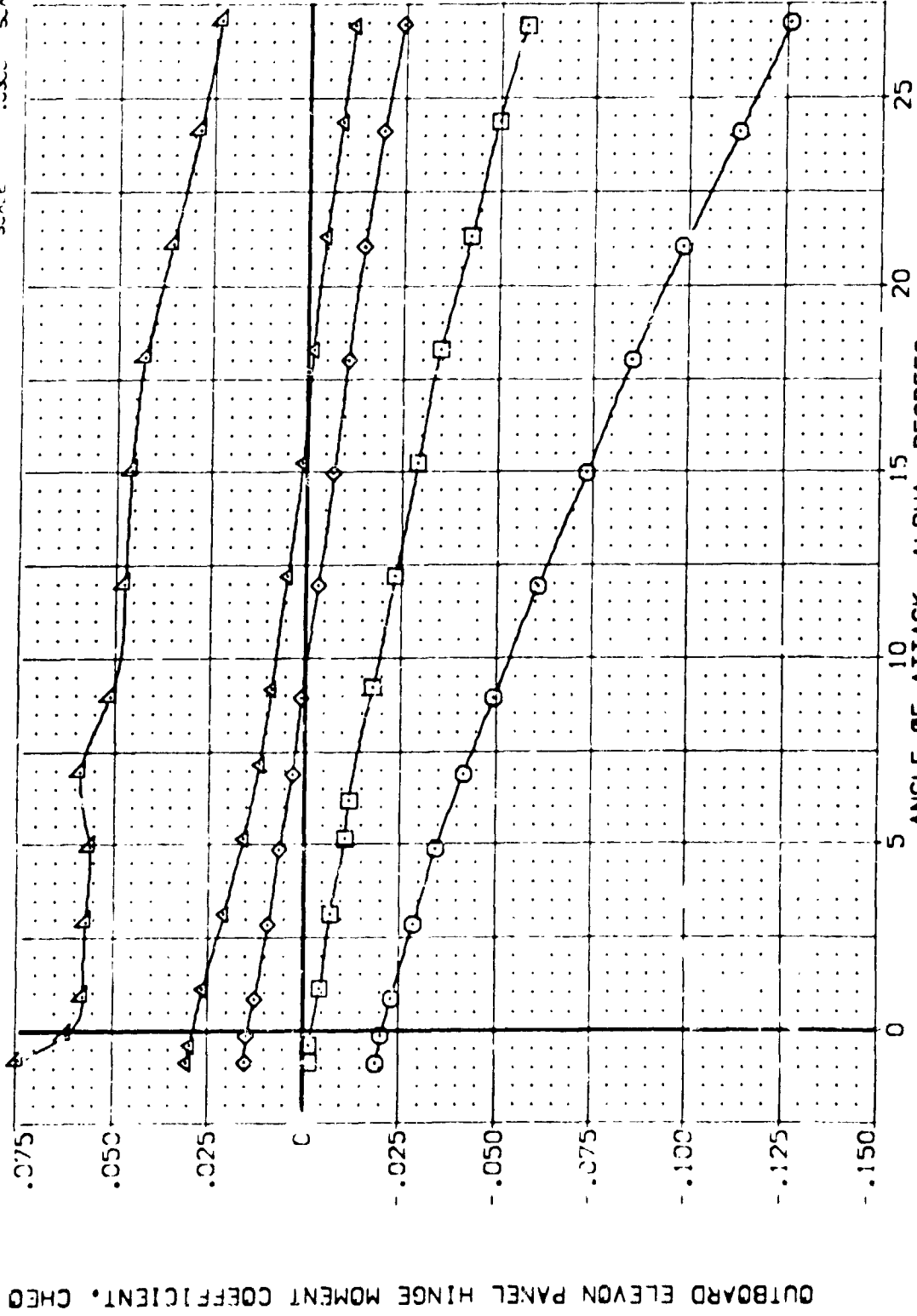
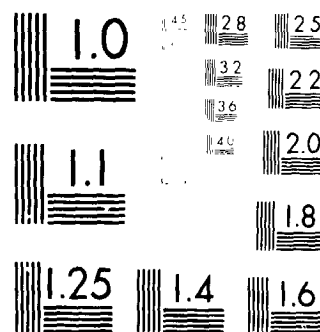


FIG. 46 ELEVON PANEL HINGEMENTS VERSUS ANGLE OF ATTACK

(C)MACH = 3.50

N74 34334 UNCLAS



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

DATA SET SYMBOL: [YEL025] [YEL026] [YEL027]

CONFIGURATION DESCRIPTION: ARC 87-747 QAS3C B C M F VI V NOM: RN/L  
 ARC 87-747 QAS3C B C M F VI V NOM: RN/L  
 ARC 87-747 QAS3C B C M F VI V NOM: RN/L

ALPHA: .000  
 RUDDER: .000  
 BOFLAP: -11.700  
 SPOBRK: 25.000  
 REFERENCE INFORMATION: 2.421C SC.FT.  
 SRF: 14.244C  
 BRFF: 28.000  
 XMRP: 32.000  
 YMRP: .000  
 ZMRP: 11.250C  
 SCALE: .030C

UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

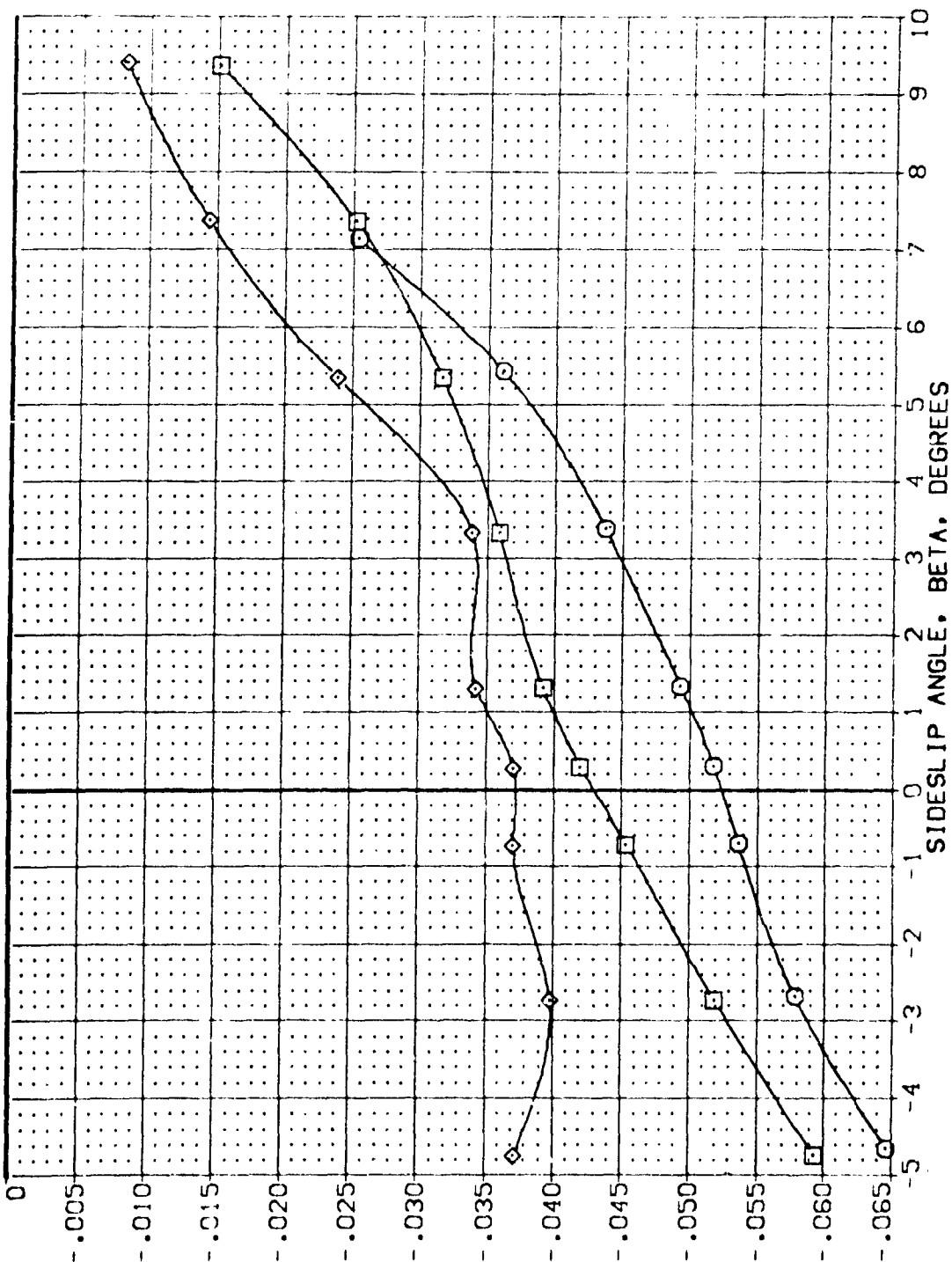


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
 (A)MAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPODBRK	REFERENCE INFORMATION
(VELO25)	ARC 87-747 CAS3C B C M F V1 V	.000	.000	-11.700	25.000	2.4210 SQ.FT.
(VELO26)	ARC 87-747 CAS3C B C M F V1 V	.000	.000	-11.700	25.000	14.2440 IN.
(VELO27)	ARC 87-747 CAS3C B C M F V1 V	.000	.000	-11.700	25.000	28.1004 IN.
						32.3010 IN.
						.0003 IN.
						11.2500 IN.
						.0300 SCALE

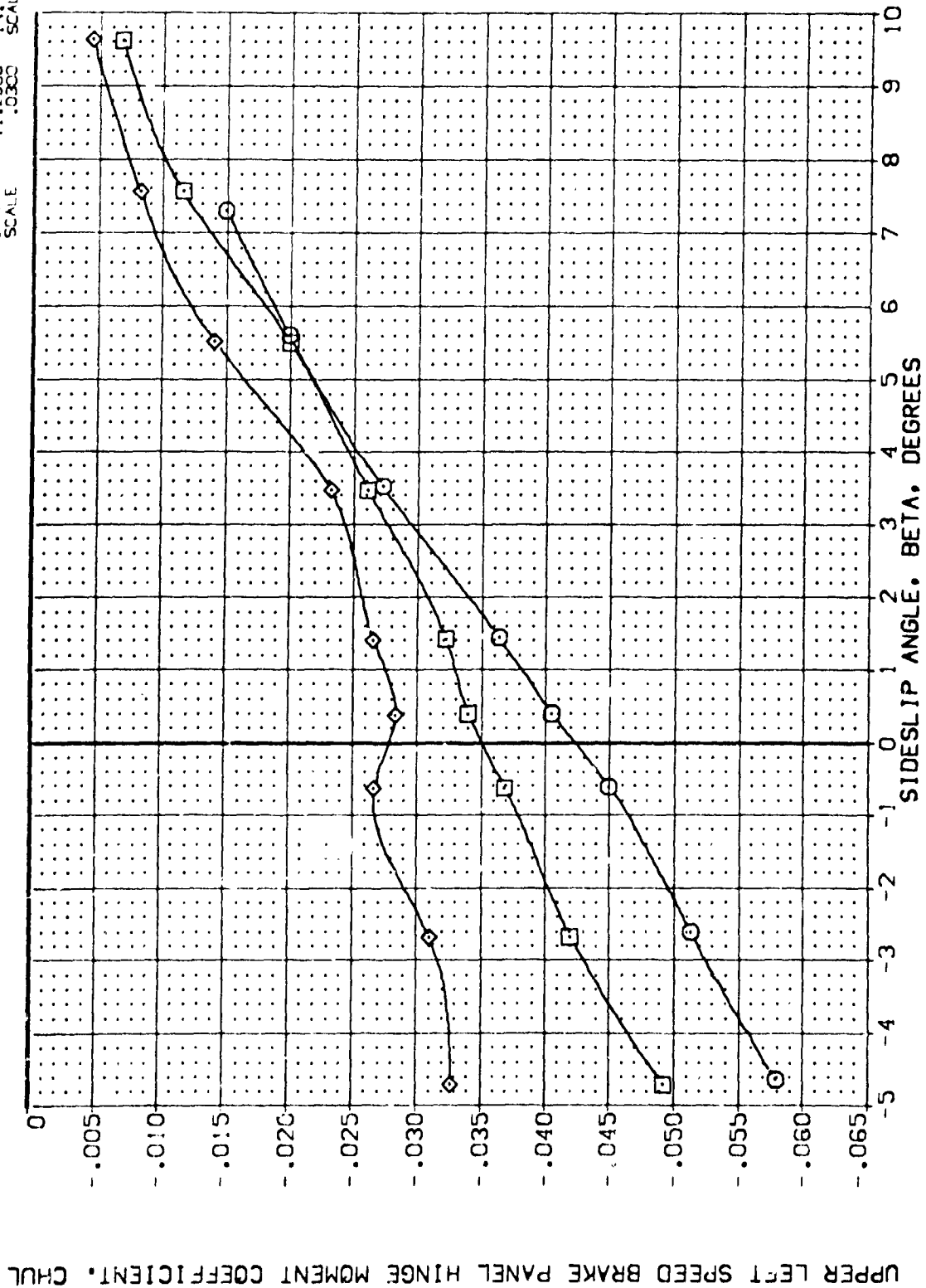


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(B)MACH = 3.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPEEDBRAKES    REFERENCE INFORMATION

[YEL075]	ARC 87-747 OAS3C B C M F VI V	.000	.000	-11.700	25.000	SREF 2.4210
[YEL076]	ARC 87-747 OAS3C B C M F VI V	10.000	.000	-11.700	25.000	LREF 14.2440
[YEL077]	ARC 87-747 OAS3C B C M F VI V	20.000	.000	-11.700	25.000	BREF 28.1004
						XMRD 32.3010
						YMRD 11.0000
						ZMRD 11.2500
						SCALE .0300

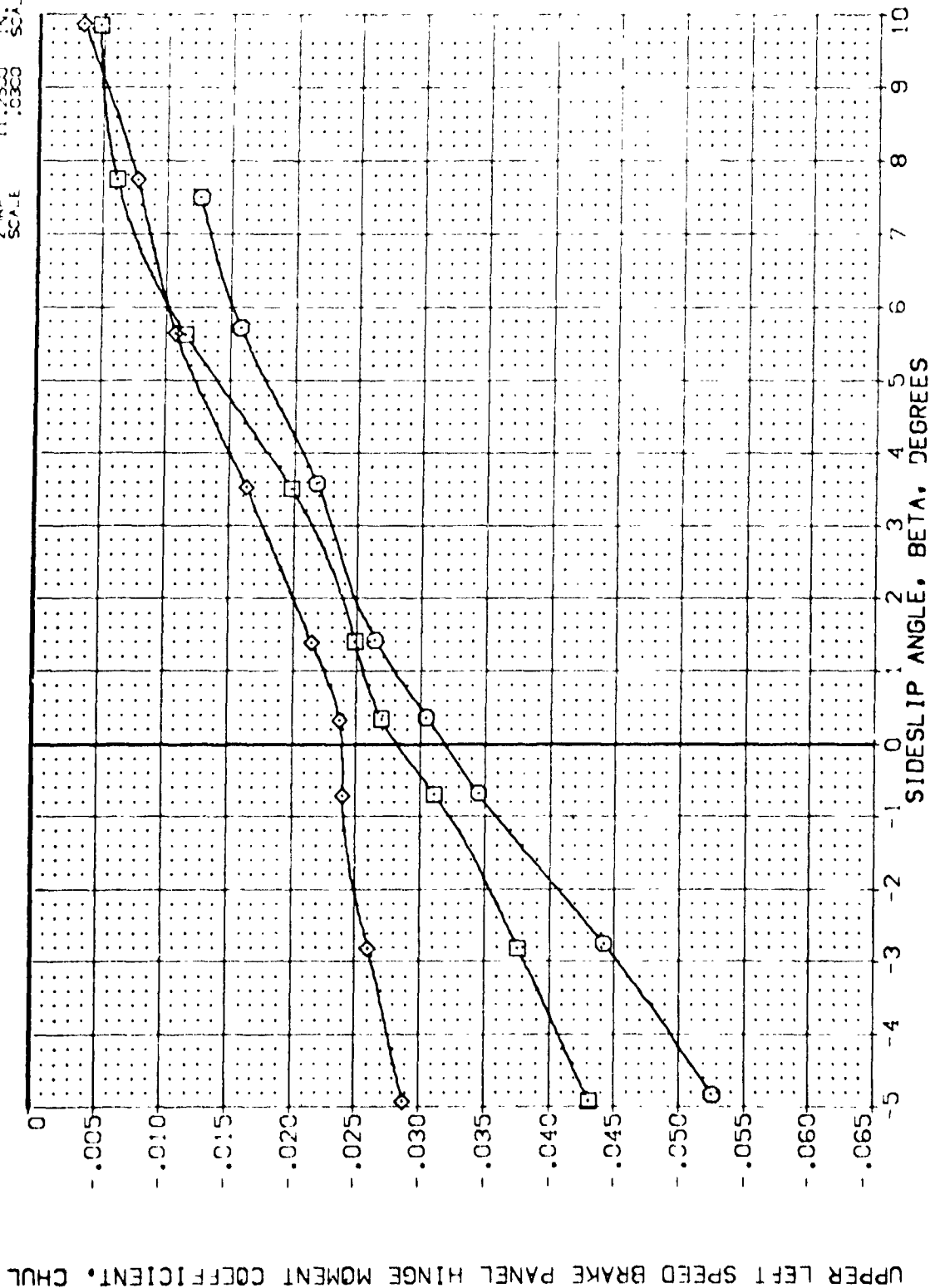


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(C)MAC = 3.50

DATA SET SYMBOL: [VEL025] [VEL026] [VEL027]

CONFIGURATION DESCRIPTION: ARC 87-747 DAS3C B C M F V1 V NOM: RNVL ARC 87-747 DAS3C B C M F V1 V NOM: RNVL ARC 87-747 DAS3C B C M F V1 V NOM: RNVL

ALPHA: .000 10.000 20.000

RUDDER: .000 .000 .000

BOF LAP: -11.700 -11.700 -11.700

SPOBRK: 25.000 25.000 25.000

REFERENCE INFORMATION: SREF 2.4210 50. FT. LREF 14.2440 N. BREF 28.1004 N. XMRP 37.3010 N. YMRP 11.0000 N. ZMRP 11.2500 N. SCALE .0300

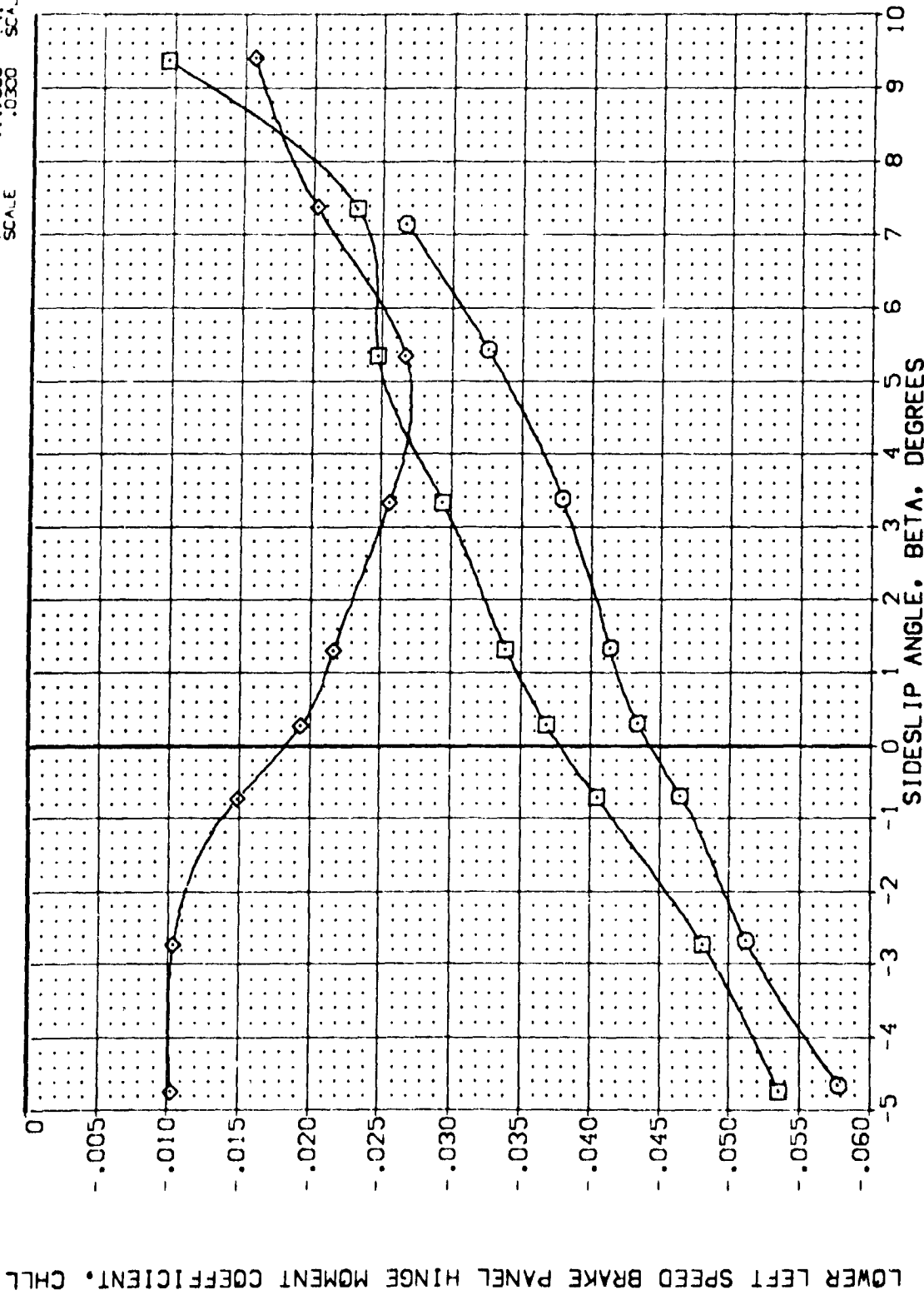


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(A)MACH = 2.50

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

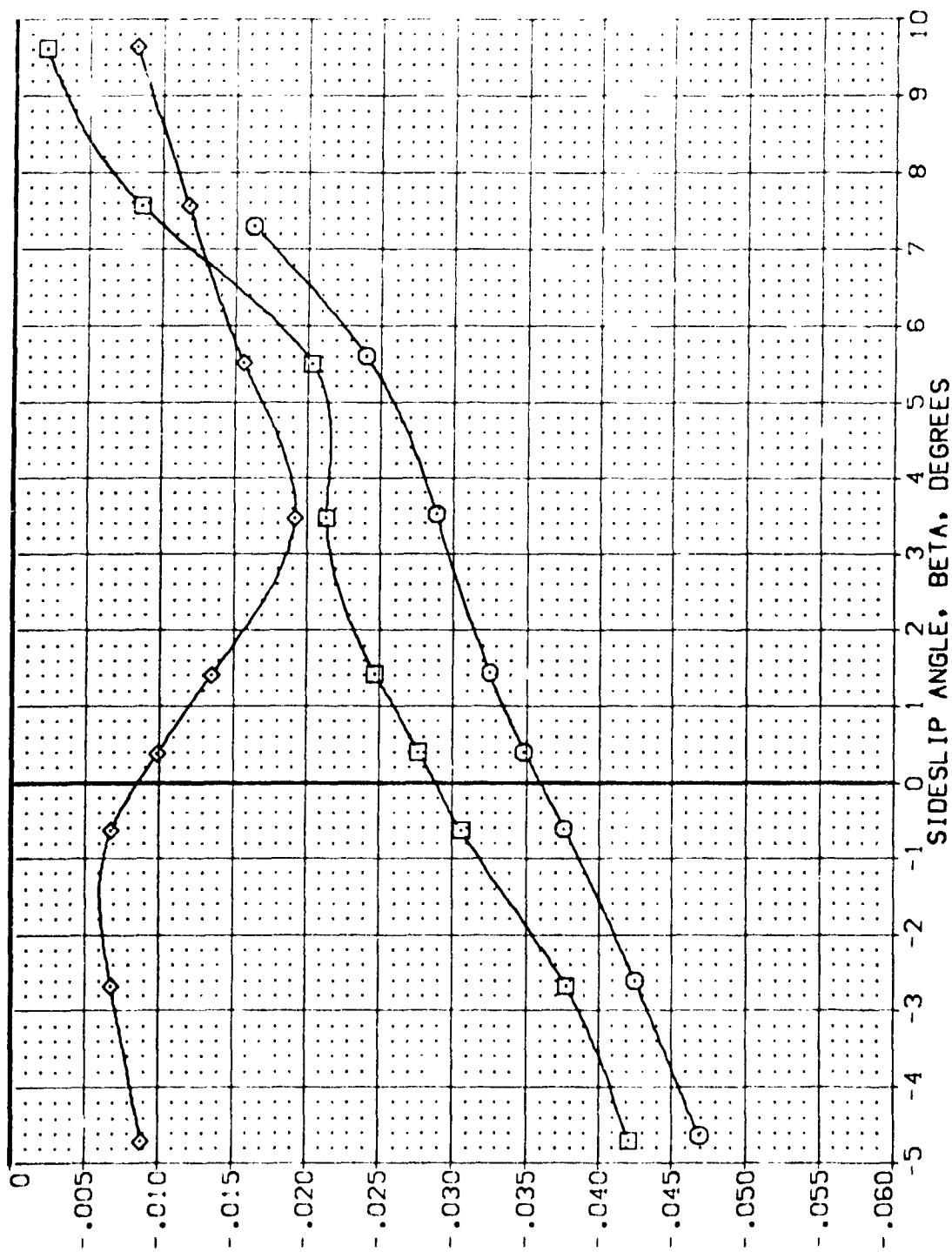


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

[B]MACH = 3.00

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

{VEL025} □ ARC 87-747 OAS3C B C M F V1 V NOM: RV/L

{VEL026} ◇ ARC 87-747 OAS3C B C M F V1 V NOM: RV/L

{VEL027} ◇ ARC 87-747 OAS3C B C M F V1 V NOM: RV/L

ALPHA RUDDER BDF LAP SPOBRK REFERENCE INFORMATION

0.000 .000 .000 25.000 SREF 2.4210 SQ. FT.

10.000 .000 .000 25.000 LREF 14.2443

20.000 .000 .000 25.000 BREF 28.1004

30.000 .000 .000 25.000 XMRP 32.3010

40.000 .000 .000 25.000 YMRP 11.2500

50.000 .000 .000 25.000 ZMRP 11.2500

SCALE 0.000 SCALE

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

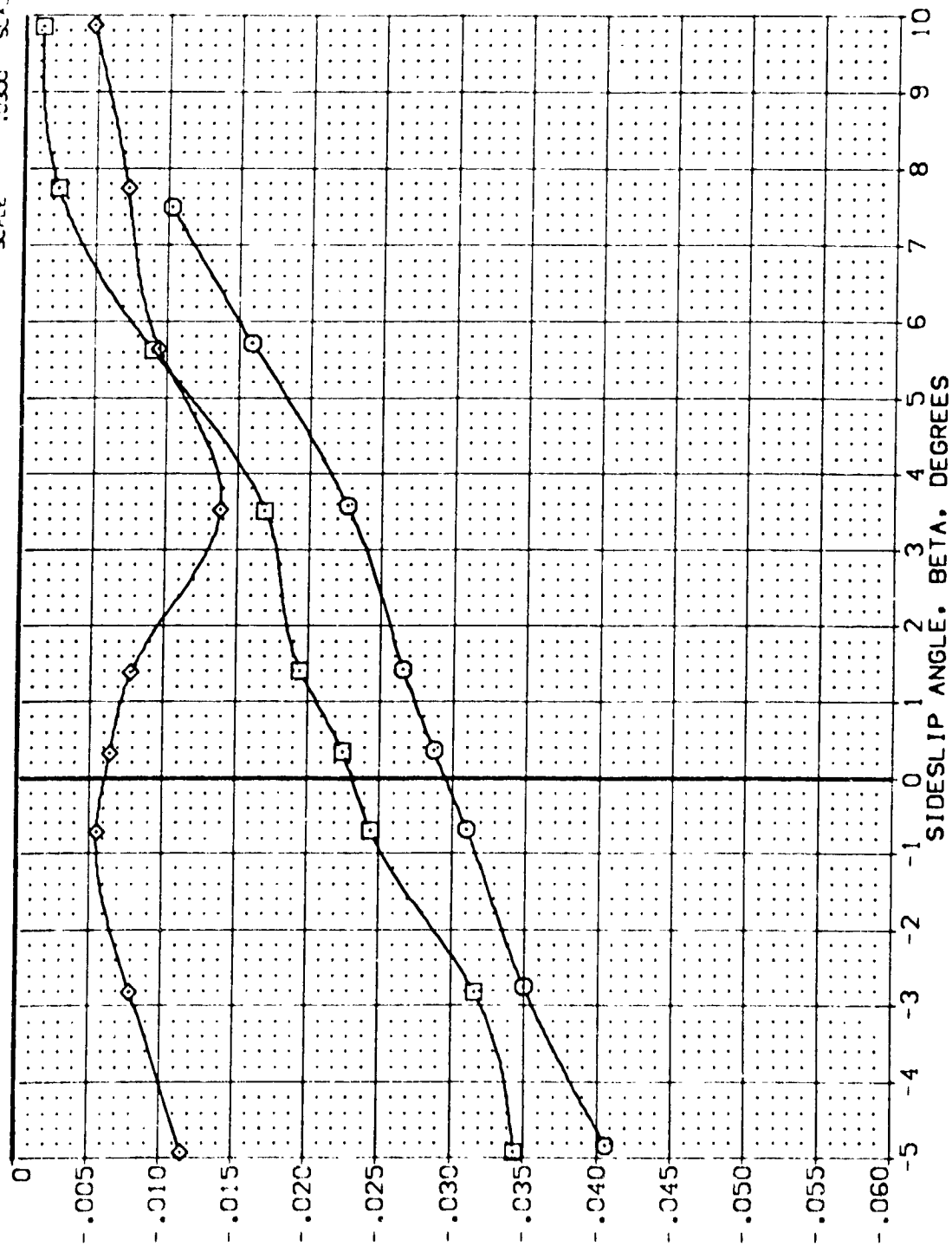


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(C)MAC = 3.50

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEEDBRAKE	REFERENCE INFORMATION
{VELO25}	ARC 87-747 OAS3C B C M F V1	.000	.000	-11.700	25.000	SREF 2.4210 SQ.F.T.
{VELO26}	ARC 87-747 OAS3C B C M F V1	10.000	.000	-11.700	25.000	LREF 14.2440
{VELO27}	ARC 87-747 OAS3C B C M F V1	20.000	.000	-11.700	25.000	BREF 28.1004
						XMREF 32.3010
						YMREF 11.2500
						ZMREF 11.2500
						SCALE .0300

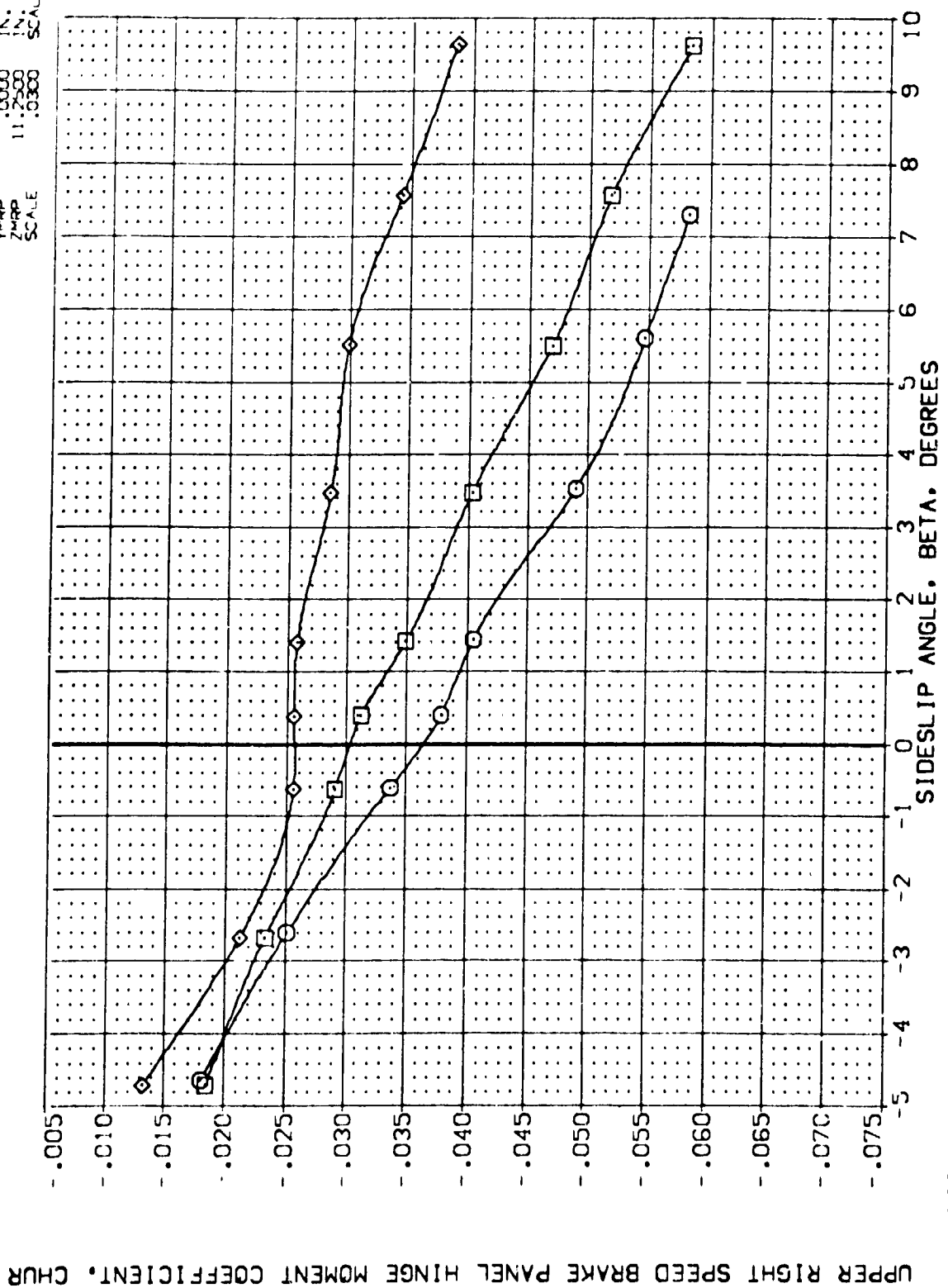


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(B)MACH = 3.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPEEDBRAKE    REFERENCE INFORMATION

[VELO25]	ARC 87-747 OAS3C B C M F VI	0.000	.000	-11.700	25.000	SREF	2.4210	SO.FT.
[VELO26]	ARC 87-747 OAS3C B C M F VI	10.000	.000	-11.700	25.000	LREF	14.2440	
[VELO27]	ARC 87-747 OAS3C B C M F VI	20.000	.000	-11.700	25.000	BREF	28.1004	
						XMPP	32.3010	
						YMPP	0.000	
						ZMPP	11.2500	
						SCALE	.0300	

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

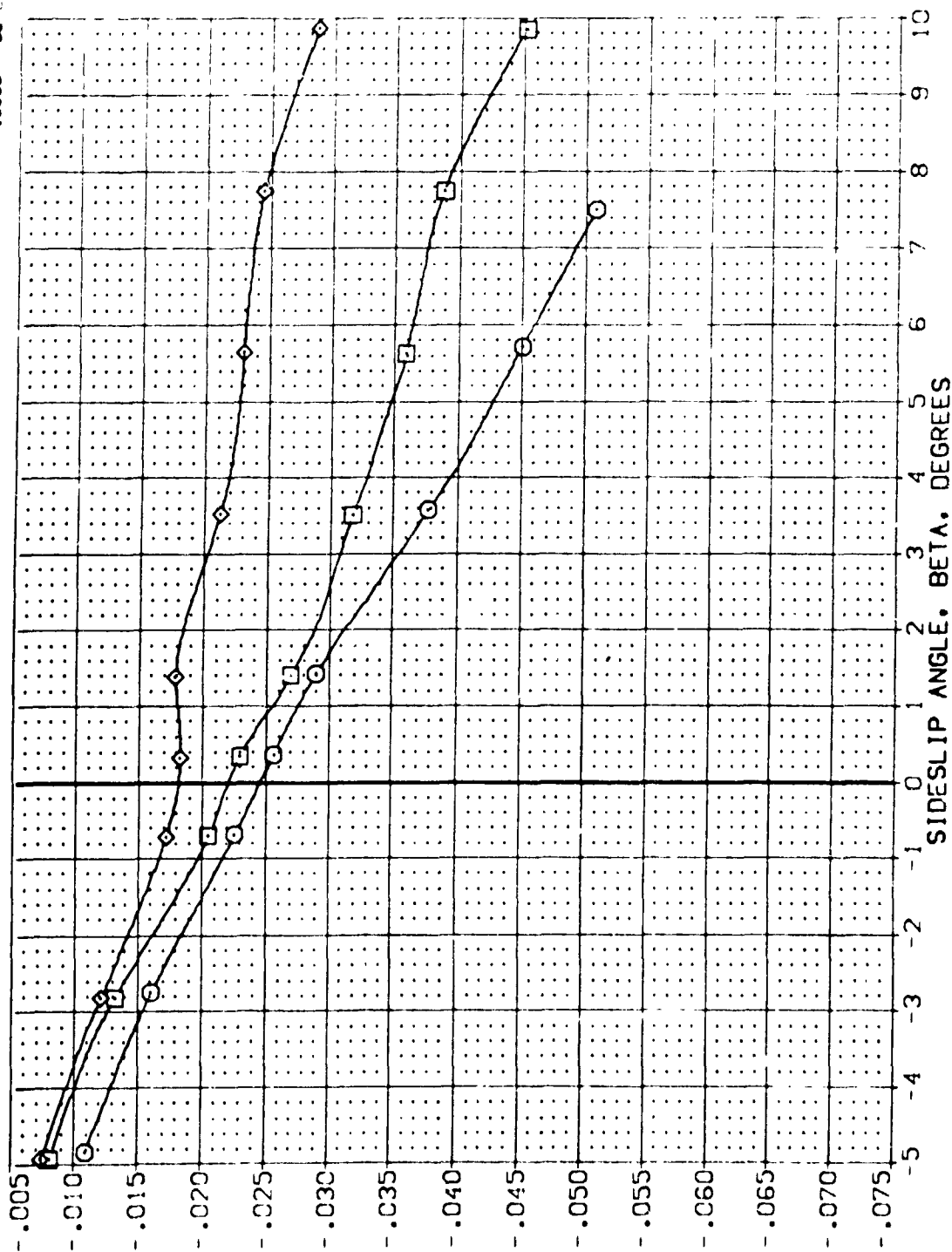


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEEDBRAKE	REFERENCE INFORMATION
(YEL-025)	ARC 87-747 CAS3C B C M F V	0.000	0.000	-11.700	25.000	SREF 2.4210 SC.FT.
(YEL-026)	ARC 87-747 CAS3C B C M F V	10.000	0.000	-11.700	25.000	LRFF 14.2440
(YEL-027)	ARC 87-747 CAS3C B C M F V	20.000	0.000	-11.700	25.000	BRFF 28.1000
						YMRP 32.3010
						YMRD 0.0000
						7MRD 11.7000
						SCALE 0.0000

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

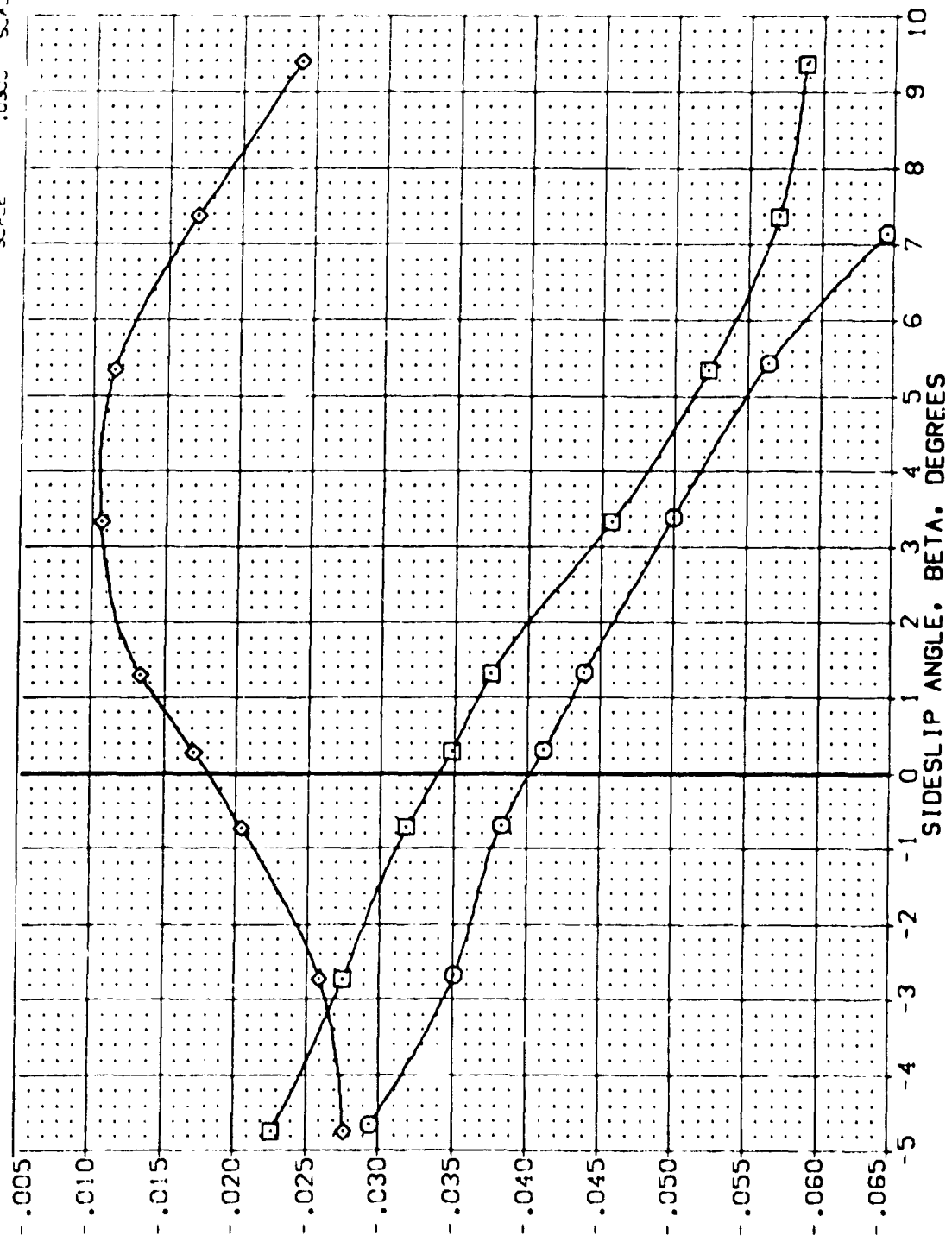


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
 (A) MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BD LAP	SPOBRK	REFERENCE INFORMATION
(YEL075)	ARC 87-747 BASIC B C M F VI V	0.000	0.000	-11.700	25.000	SREF 2.4210 50.000
(YEL076)	ARC 87-747 BASIC B C M F VI V	10.000	0.000	-11.700	25.000	LREF 14.2440 50.000
(YEL077)	ARC 87-747 BASIC B C M F VI V	20.000	0.000	-11.700	25.000	BREF 28.1004 50.000
						XREF 32.3010 50.000
						YREF 11.2500 50.000
						SCALE 0.0300

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

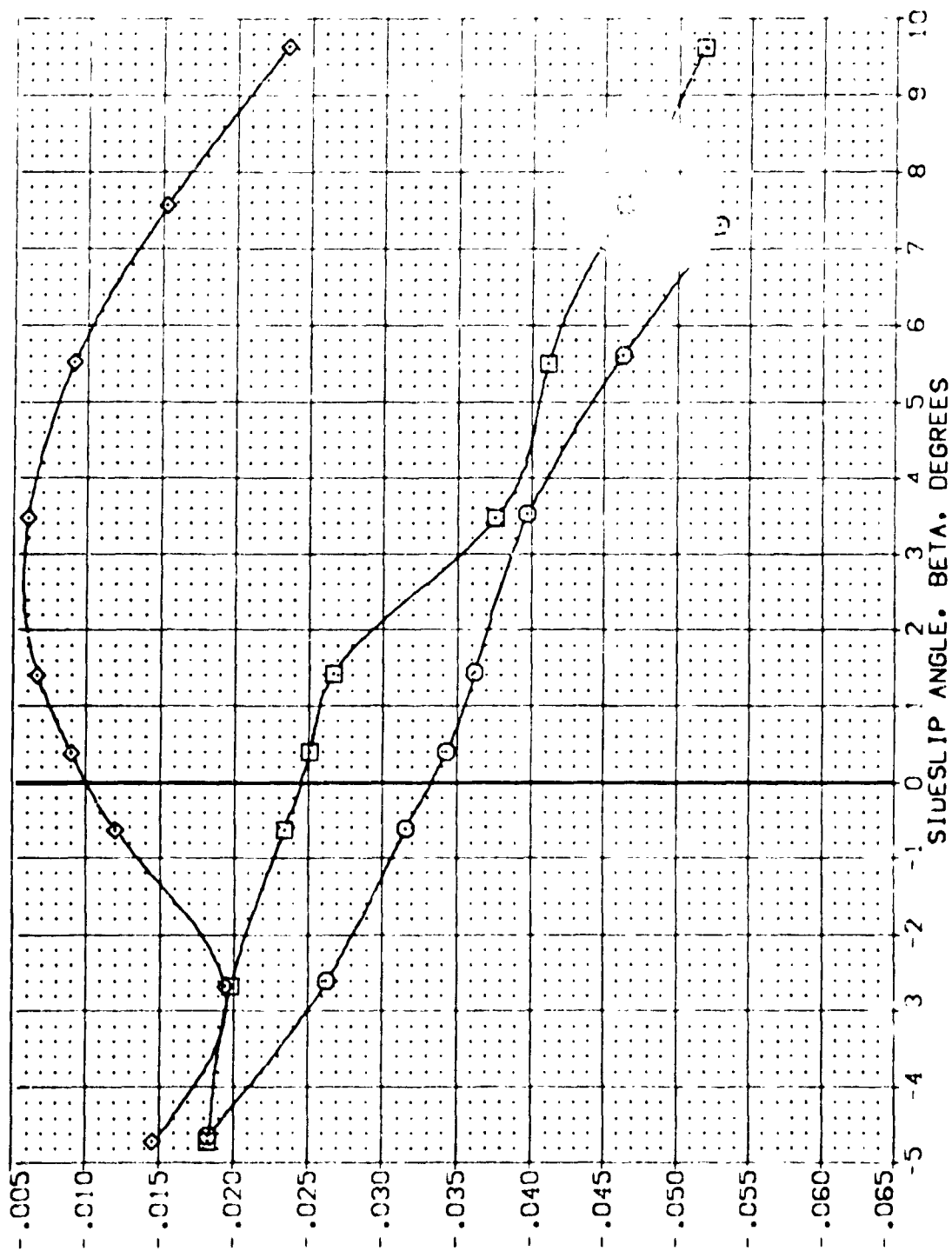


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(B)MAC = 3.00

DATA SET SYMBOL: CONFIGURATION DESCRIPTION: REFERENCE INFORMATION: SQ. FT.

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION	SQ. FT.
ARC 87-747 BASIC B C M F VI V	ARC 87-747 BASIC B C M F VI V	SREF	2.4210
ARC 87-747 BASIC B C M F VI V	ARC 87-747 BASIC B C M F VI V	LREF	14.2440
ARC 87-747 BASIC B C M F VI V	ARC 87-747 BASIC B C M F VI V	BREF	28.1004
ARC 87-747 BASIC B C M F VI V	ARC 87-747 BASIC B C M F VI V	AMRO	32.3010
ARC 87-747 BASIC B C M F VI V	ARC 87-747 BASIC B C M F VI V	YMRP	11.0000
ARC 87-747 BASIC B C M F VI V	ARC 87-747 BASIC B C M F VI V	ZMRP	11.2500
ARC 87-747 BASIC B C M F VI V	ARC 87-747 BASIC B C M F VI V	SCALE	.0300

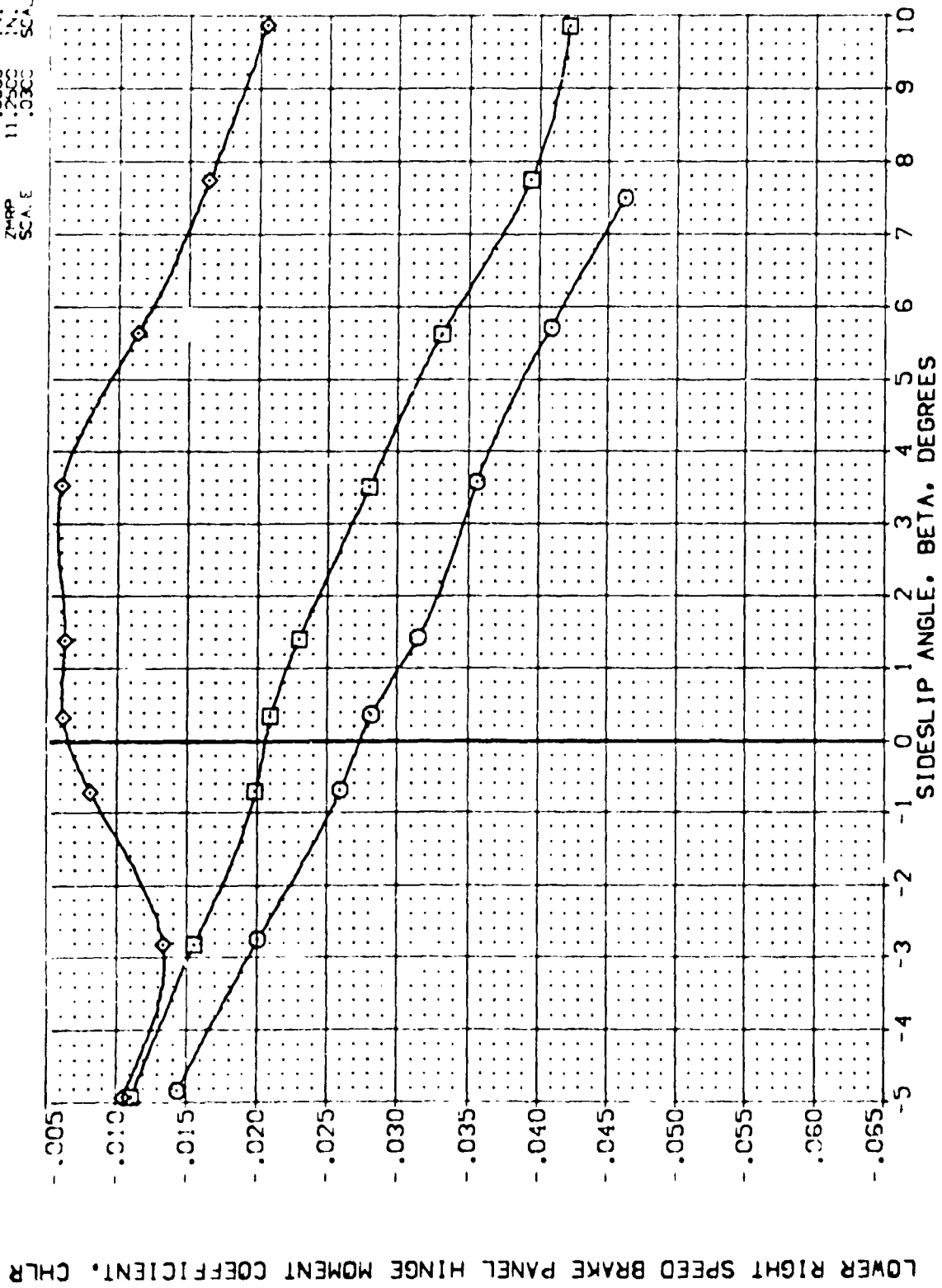


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(C)MACH = 3.50

DATA SET SYMBOL: (VELOC35) (VELOC36) (VELOC37)

CONFIGURATION DESCRIPTION: ARC 87-747 OAS3C B C M F VI V NOM: RV/L ARC 87-747 OAS3C B C M F VI V NOM: RV/L ARC 87-747 OAS3C B C M F VI V NOM: RV/L

ALPHA: .0000 10.000 20.000

RUDDER: -10.000 -10.000 -10.000

BOFLAP: -11.700 -11.700 -11.700

SPEED: 25.000 25.000 25.000

REFERENCE IN GRAPH: SREF 2.4210 14.2410 28.0000 32.3000 11.7000 SCALE 50.000 50.000 50.000 50.000 50.000

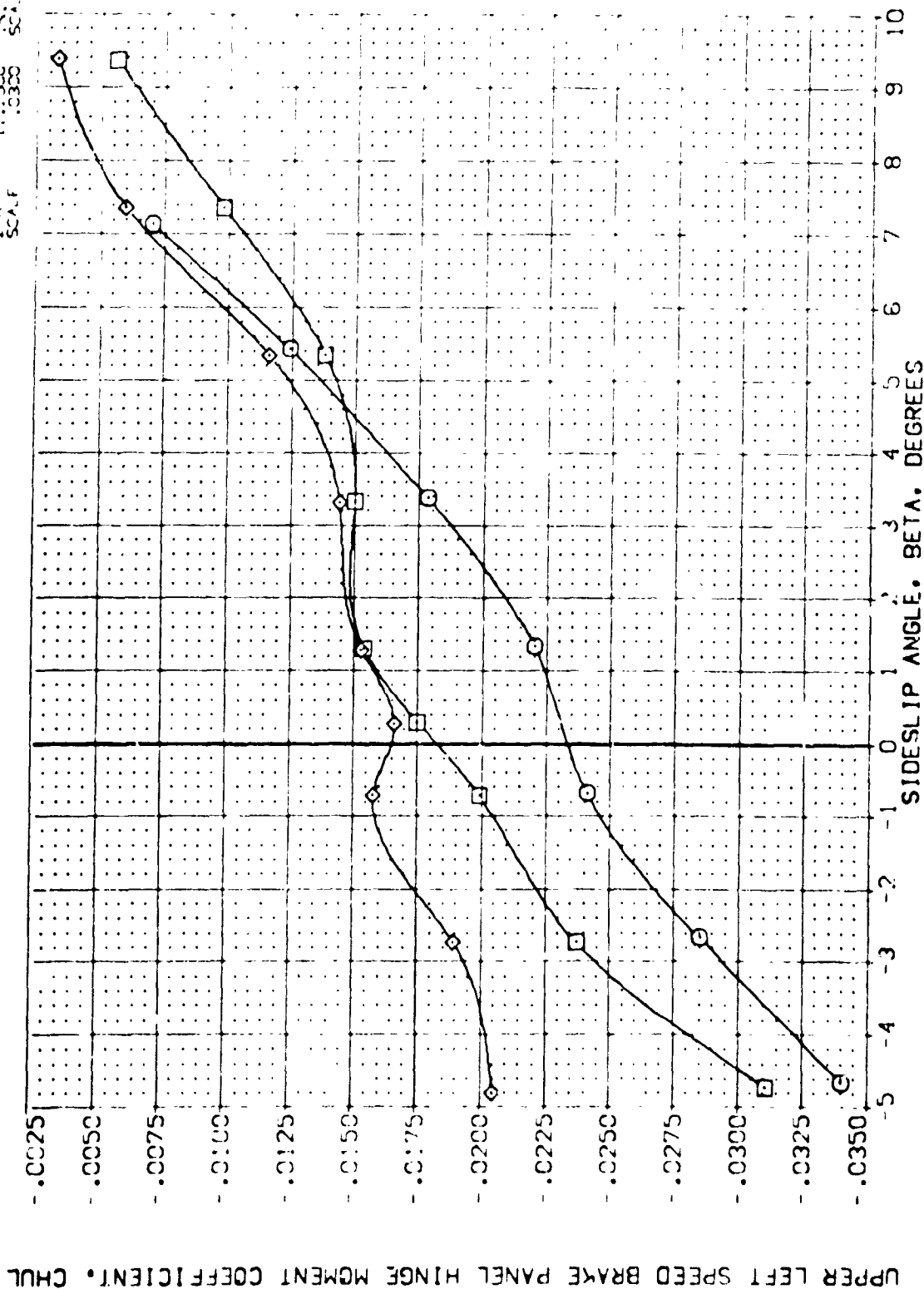


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(MACH = 2.50)



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPOBRK    REFERENCE INFORMATION

Symbol	Configuration	Alpha	Rudder	Boflap	SpoBrk	SREF	LREF	BREF	XMRP	YMRP	ZMRP	SCALE
(V)	ARC 87-747 DA53C B C M F V1	0.000	-10.000	-11.700	25.000	2.4210	14.2440	28.1004	32.3010	0.0000	0.0000	0.0300
(V)	ARC 87-747 DA53C B C M F V1	10.000	-10.000	-11.700	25.000							
(V)	ARC 87-747 DA53C B C M F V1	20.000	-10.000	-11.700	25.000							

UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

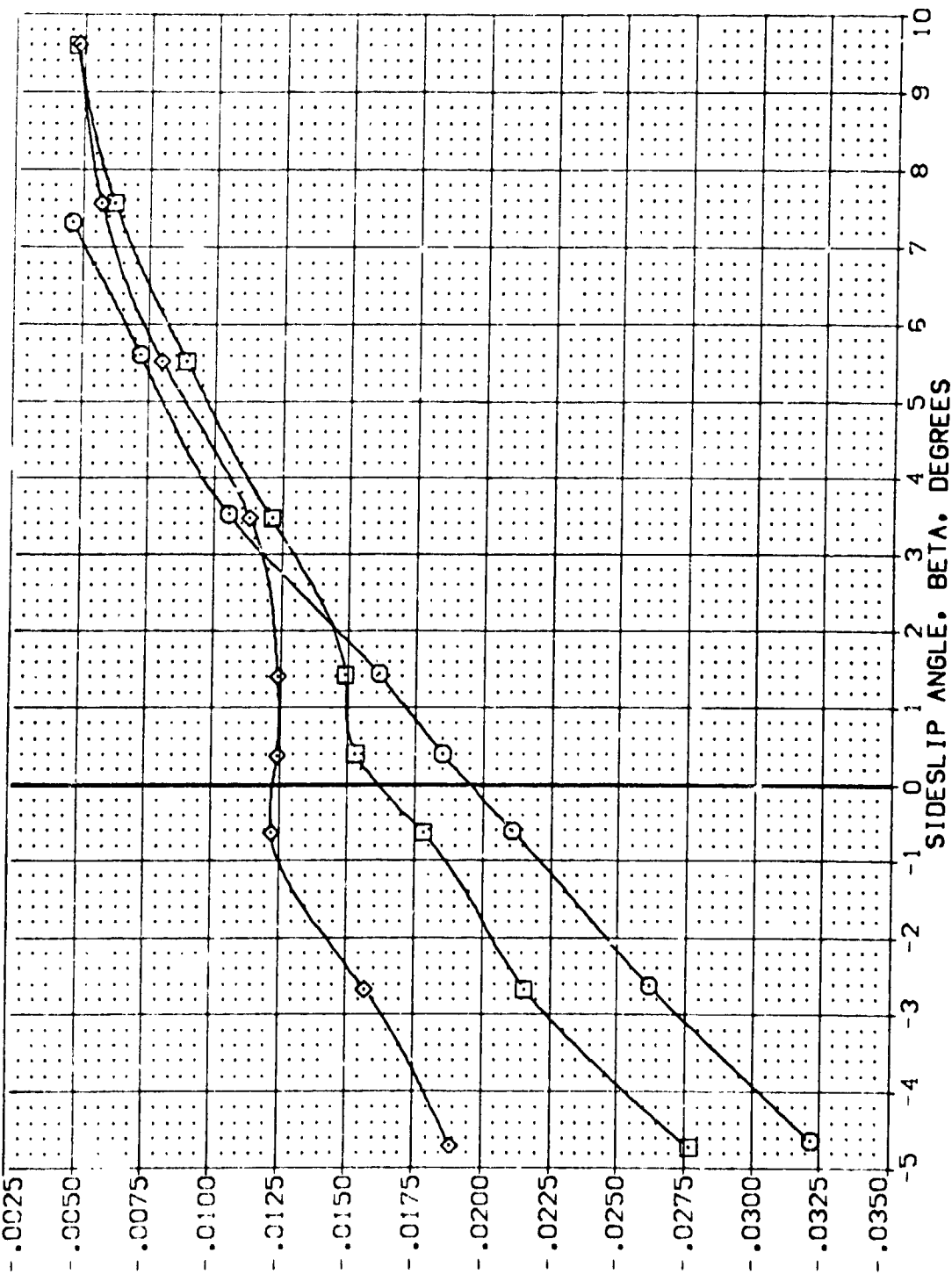


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(B)MACH = 3.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPEEDBRAKES    REFERENCE INFORMATION

(YEL035)	ARC 87-747 OAS3C B C M F VI	0.000	-10.000	-11.700	25.000	SREF	2.4210	50.000
(YEL036)	ARC 87-747 OAS3C B C M F VI	10.000	-10.000	-11.700	25.000	REF	14.2440	10.000
(YEL037)	ARC 87-747 OAS3C B C M F VI	20.000	-10.000	-11.700	25.000	BRF	28.1000	10.000
						YMRP	32.3000	10.000
						ZMRP	11.2500	10.000
						SCALE	0.000	0.000

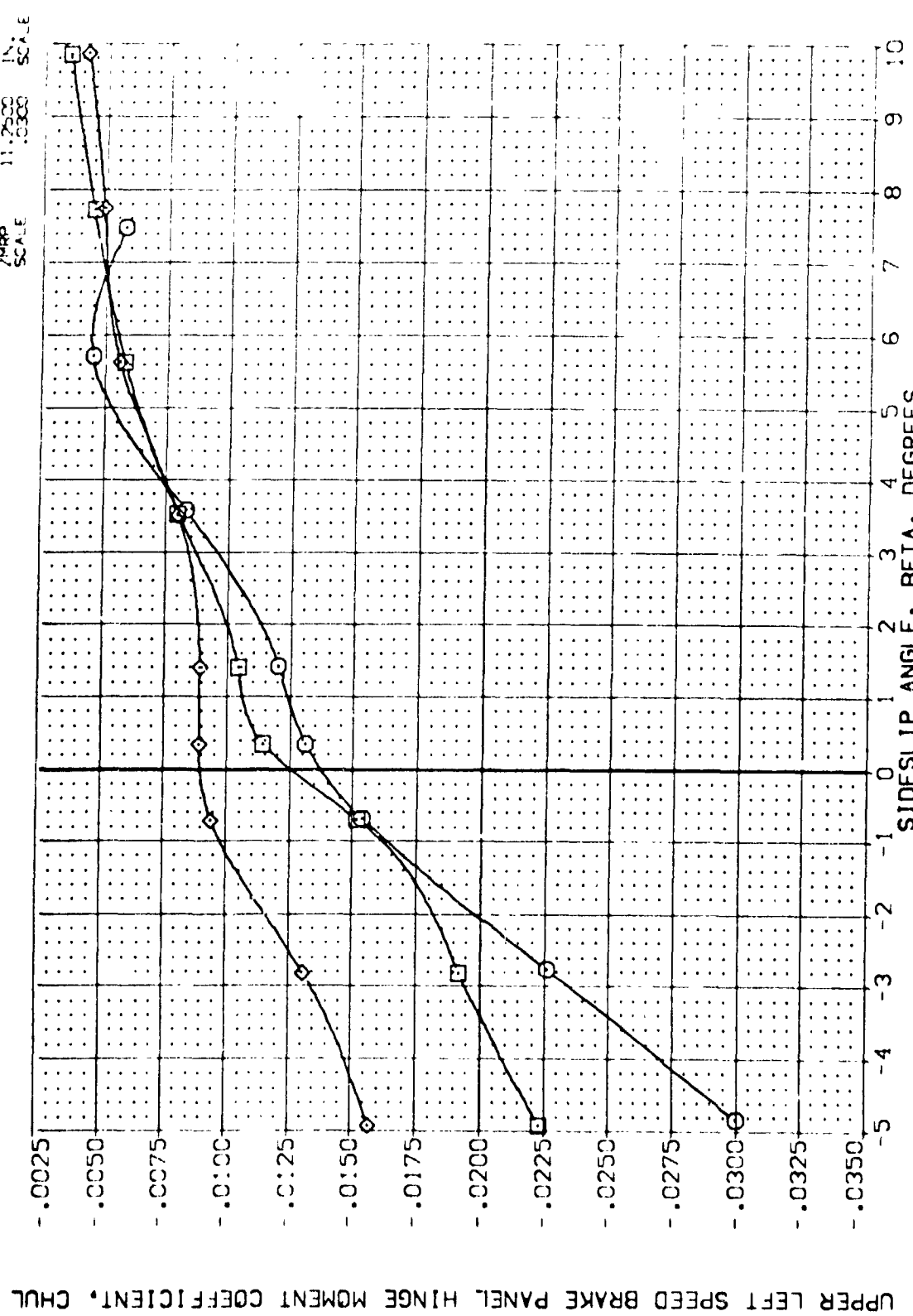


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
 (C)MACH = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPEEDBRAKE    REFERENCE INFORMATION

(YE 035)	ARC 87-747 BAS3C B C M F V1	0.000	-10.000	-11.700	25.000	SREF	2.4210	50. FT.
(YE 036)	ARC 87-747 BAS3C B C M F V1	10.000	-10.000	-11.700	25.000	REF	14.2440	IN.
(YE 037)	ARC 87-747 BAS3C B C M F V1	20.000	-10.000	-11.700	25.000	BOFL	28.1004	IN.
						XMRP	32.3010	IN.
						YMRP	0.0000	IN.
						ZMRP	11.2500	IN.
						SCALE	0.0300	SCALE

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

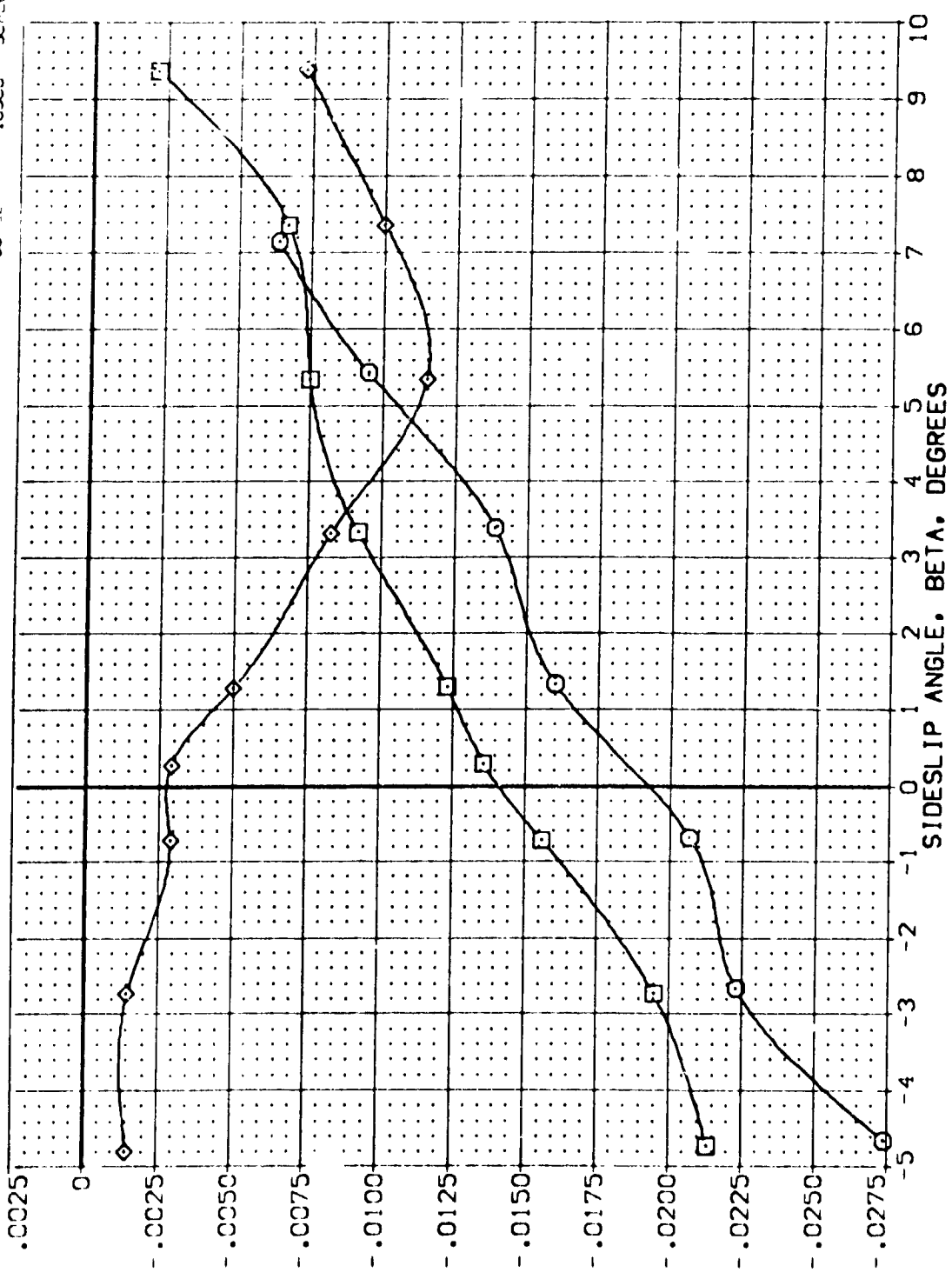


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(A)MACH = 2.50

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ALPHA	RIDER	BOFLAP	SPURRY
0.000	-10.000	-11.700	75.000
10.000	-10.000	-11.700	75.000
70.000	-10.000	-11.700	75.000

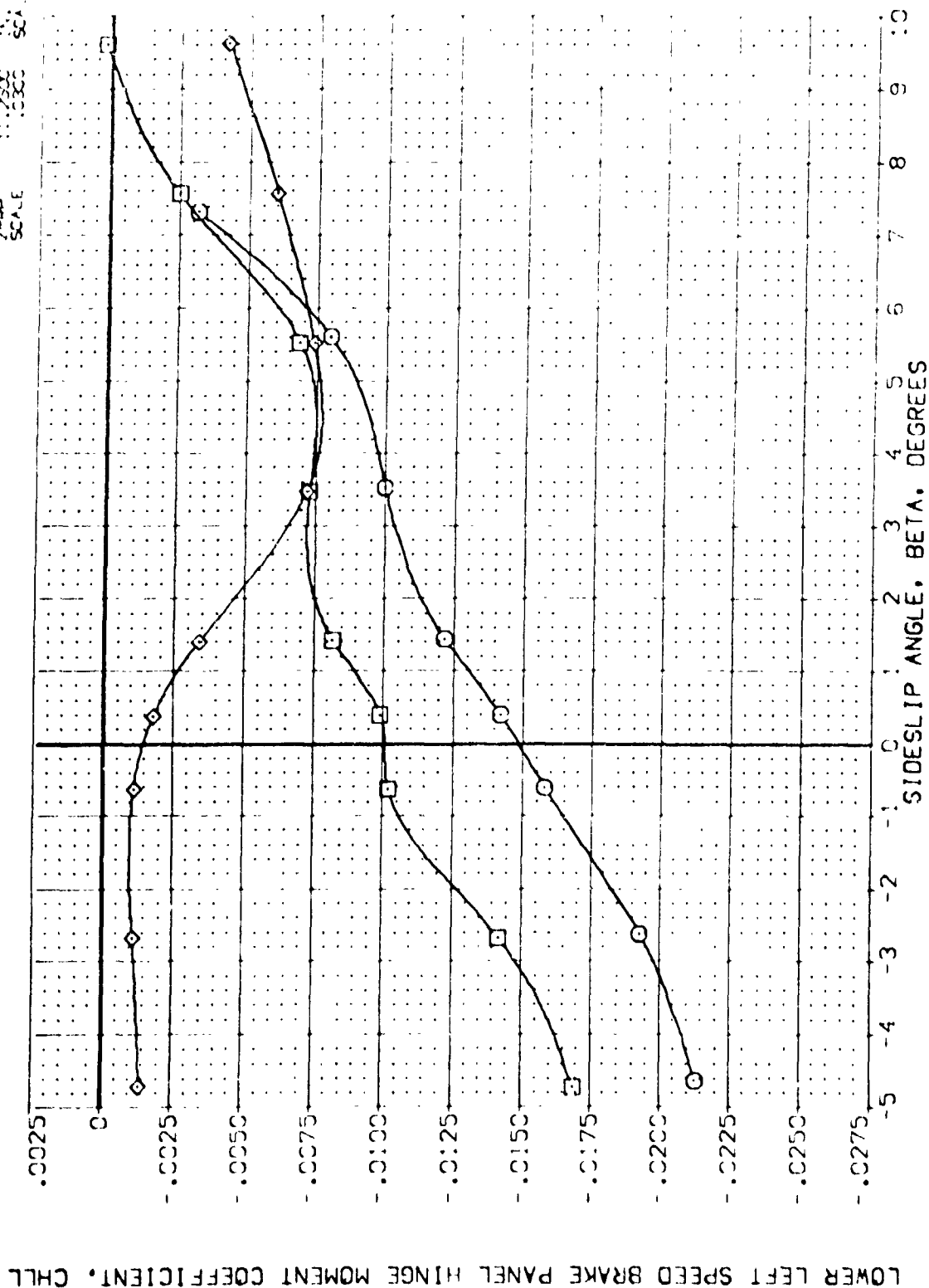
[illegible]

FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDFLAP	SPOBRK	REFERENCE INFORMATION
(VELO35)	ARC 87-747 OAS3C B C M F V1 V	0.000	-10.000	-11.700	25.000	SREF 2.4710 SC.17.
(VELO36)	ARC 87-747 OAS3C B C M F V1 V	10.000	-10.000	-11.700	25.000	REF 14.2440
(VELO37)	ARC 87-747 OAS3C B C M F V1 V	20.000	-10.000	-11.700	25.000	REF 28.1004
						REF 32.3010
						REF 11.2500
						SCALE .0300

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

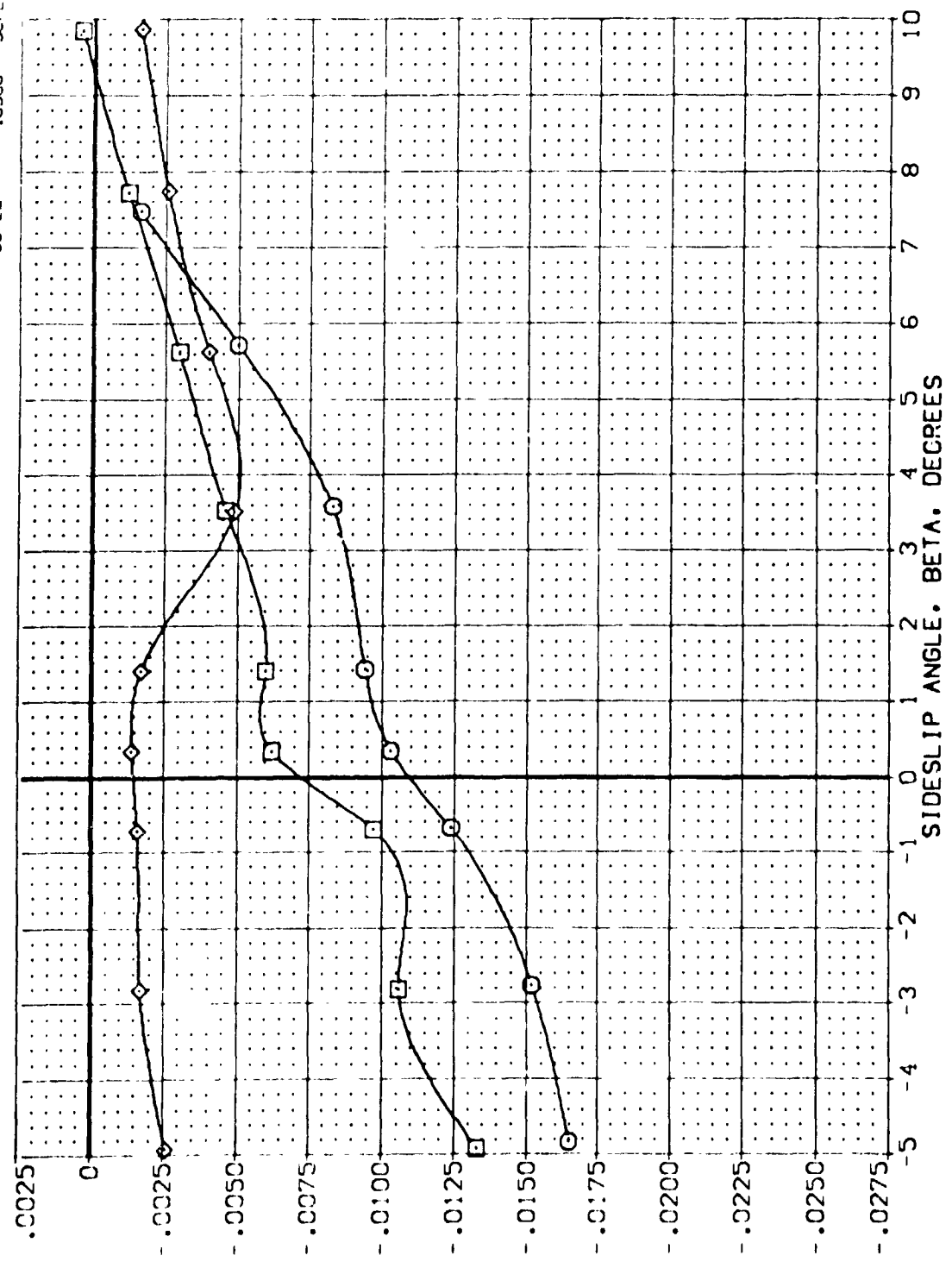


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(C)MACH = 3.50

DATA SET SYMBOL: [YEL036] [YEL036] [YEL037]

CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C M F VI V NOT: RN/L ARC 87-747 BASIC B C M F VI V NOT: RN/L ARC 87-747 BASIC B C M F VI V NOT: RN/L

ALPHA: 0.000 10.000 20.000

RUDDER: -10.000 -10.000 -10.000

BOF LAP: -11.700 -11.700 -11.700

SPEED: 25.000 25.000 25.000

REFERENCE INFORMATION: SREF 2.4210 50.0 FT. LREF 14.2440 IN. BREF 28.0004 IN. XMRD 32.0010 IN. YMRD 0.0000 IN. ZMRD 11.2500 IN. SCALE 0.0300

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

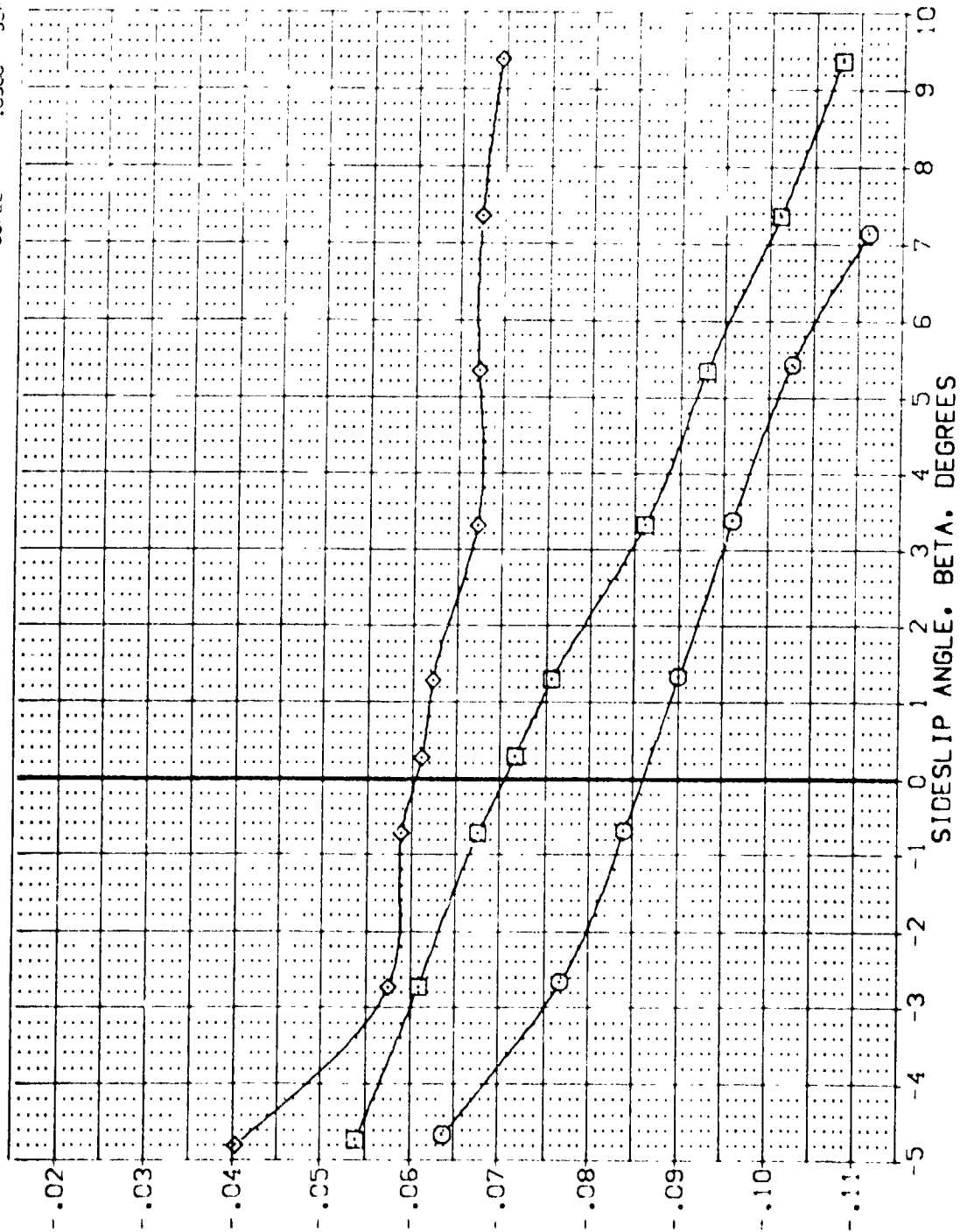


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(A)MACH = 2.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPEEDRY    REFERENCE INFORMATION

ARC 87-747	BASEC B C M F V	0.000	-10.000	-11.700	25.000	SREF 2.4210
ARC 87-747	BASEC B C M F V	10.000	-10.000	-11.700	25.000	P-E 14.2440
ARC 87-747	BASEC B C M F V	20.000	-10.000	-11.700	25.000	SP-E 28.1004
						AMP 32.3010
						TMRP 11.2500
						ZMRP 1.0300
						SCALE

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

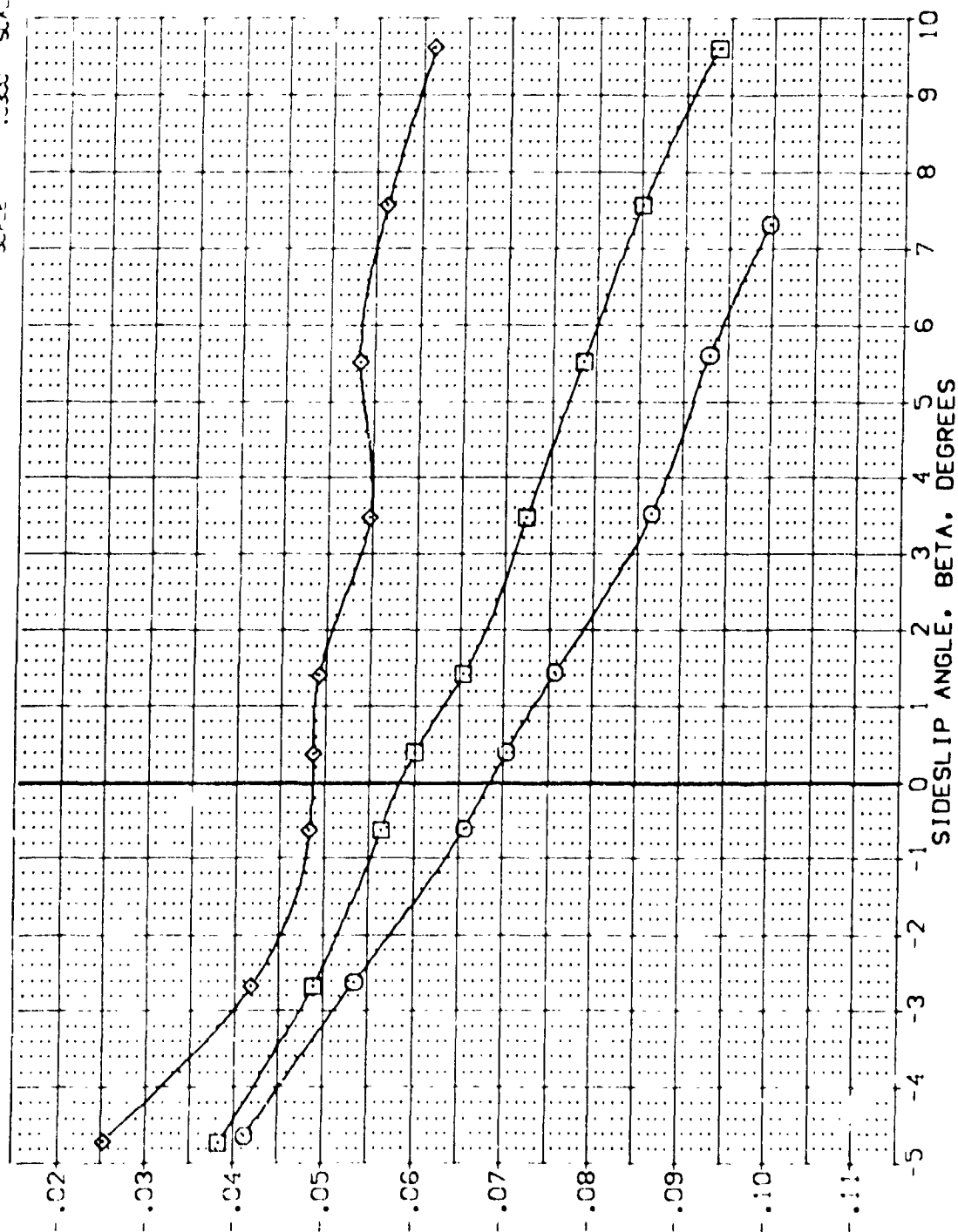


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(B) VACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

Symbol	Configuration	Description	Alpha	Rudder	Boatlap	SPDRK	Reference Information
(VELO35)	ARC 87-747	DA53C B C M F VI	0.000	-10.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(VELO36)	ARC 87-747	DA53C B C M F VI	10.000	-10.000	-11.700	25.000	REF 14.2440
(VELO37)	ARC 87-747	DA53C B C M F VI	20.000	-10.000	-11.700	25.000	REF 28.1000
							REF 37.3010
							REF 11.2500
							SCALE .0300

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

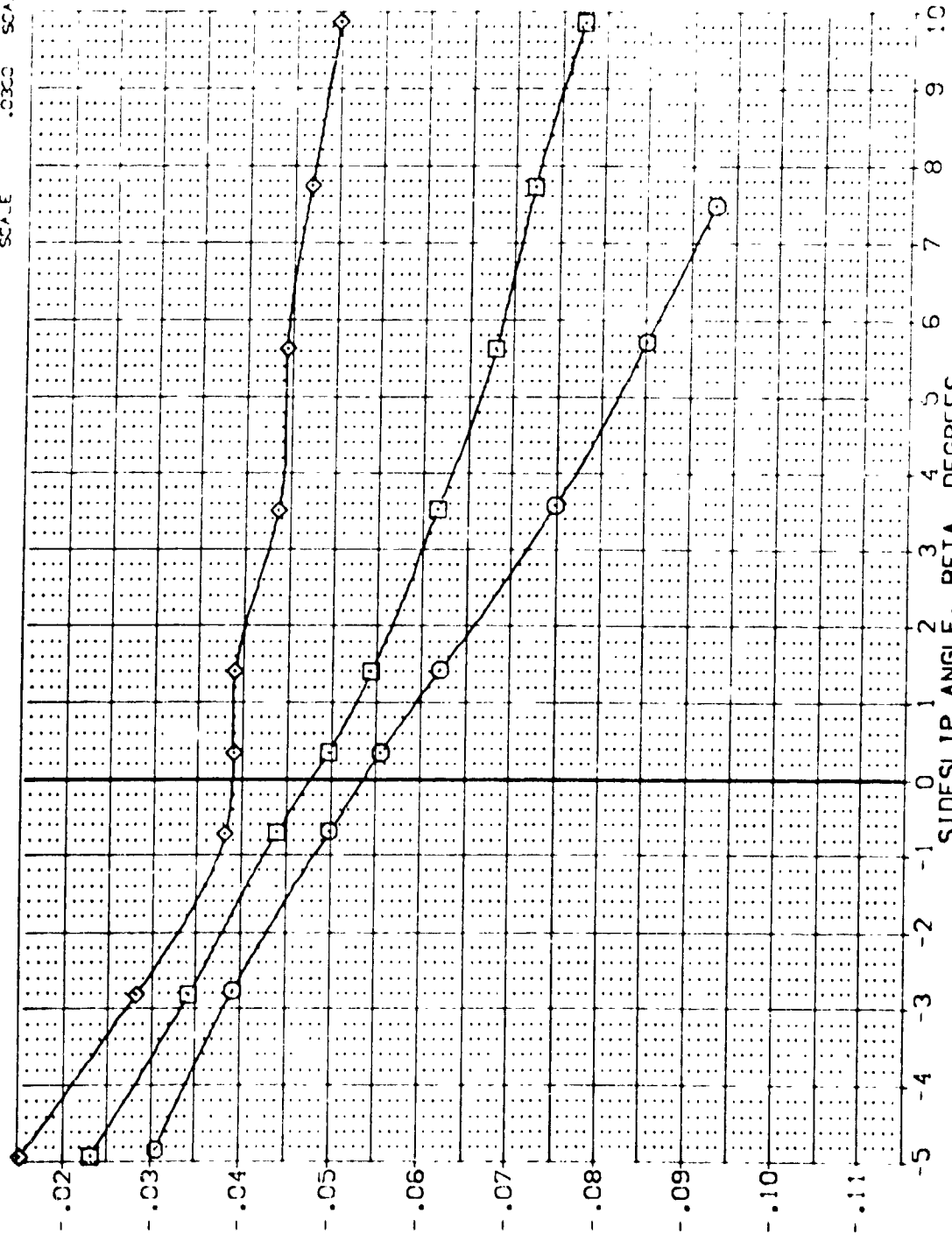


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(C)MAC = 3.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEED	REFERENCE INFORMATION
(VEL035)	ARC 87-747 DASEC B C M F VI V	0.000	-10.000	-11.700	25.000	SREF 2.4210 SCLET.
(VEL036)	ARC 87-747 DASEC B C M F VI V	10.000	-10.000	-11.700	25.000	LREF 14.2410
(VEL037)	ARC 87-747 DASEC B C M F VI V	20.000	-10.000	-11.700	25.000	XREF 28.1004
						YREF 32.3010
						ZREF 0.000
						SCALE 11.000
						SCALE 11.000

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

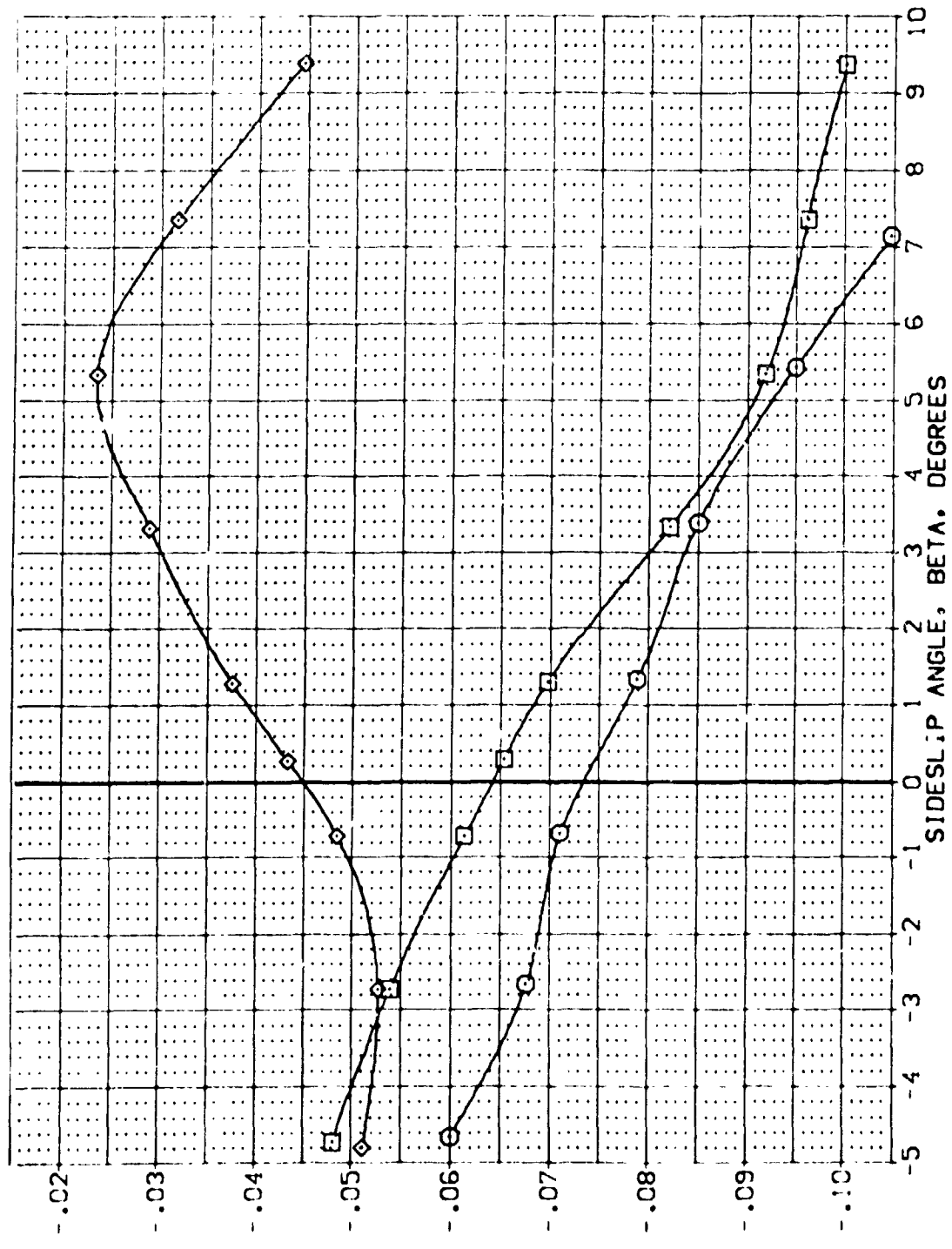


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(A)MACH = 2.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPEEDBRAKES    REFERENCE INFORMATION

[YEL035]	ARC 87-747 CAS3C B C H F V	0.000	-10.000	-11.700	25.000	SREF 2.4210
[YEL036]	ARC 87-747 CAS3C B C H F V	10.000	-10.000	-11.700	25.000	REF 14.2440
[YEL037]	ARC 87-747 CAS3C B C H F V	20.000	-10.000	-11.700	25.000	9REF 28.1000
						YMRP 32.3010
						ZMRP 11.0000
						SCALE 11.7500
						SCALE 10.300

LOWER RIGHT SPEED BRAKE HINGE MOMENT COEFFICIENT, CHLR

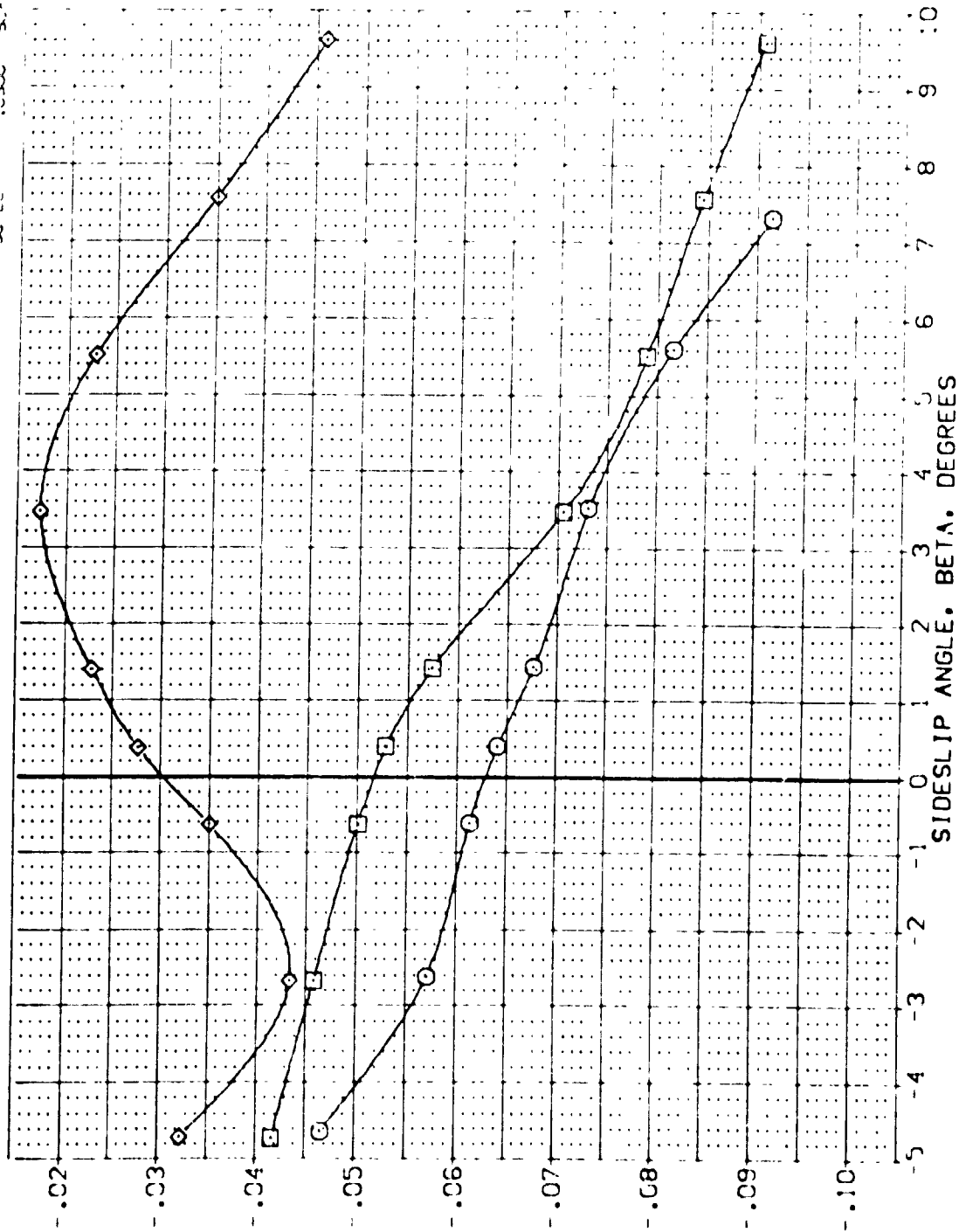


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(B)MACH = 3.00

DATA SET SYMBOL: (VE-035) (VE-036) (VE-037)

CONFIGURATION DESCRIPTION: ARC 87-747 BASIC B C M F V V NOM: RV/L V NOM: RV/L V NOM: RV/L

ALPHA: .000 -10.000 -20.000

RUDDER: -10.000 -10.000 -10.000

BOF LAP: -11.700 -11.700 -11.700

SPEEDBRK: 25.000 25.000 25.000

REFERENCE INFORMATION: SRT 2.4210 SQ.F. RATE 14.2440 BRK 28.1004 ANGR 32.3030 TURN 11.7500 SCALE .0300

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

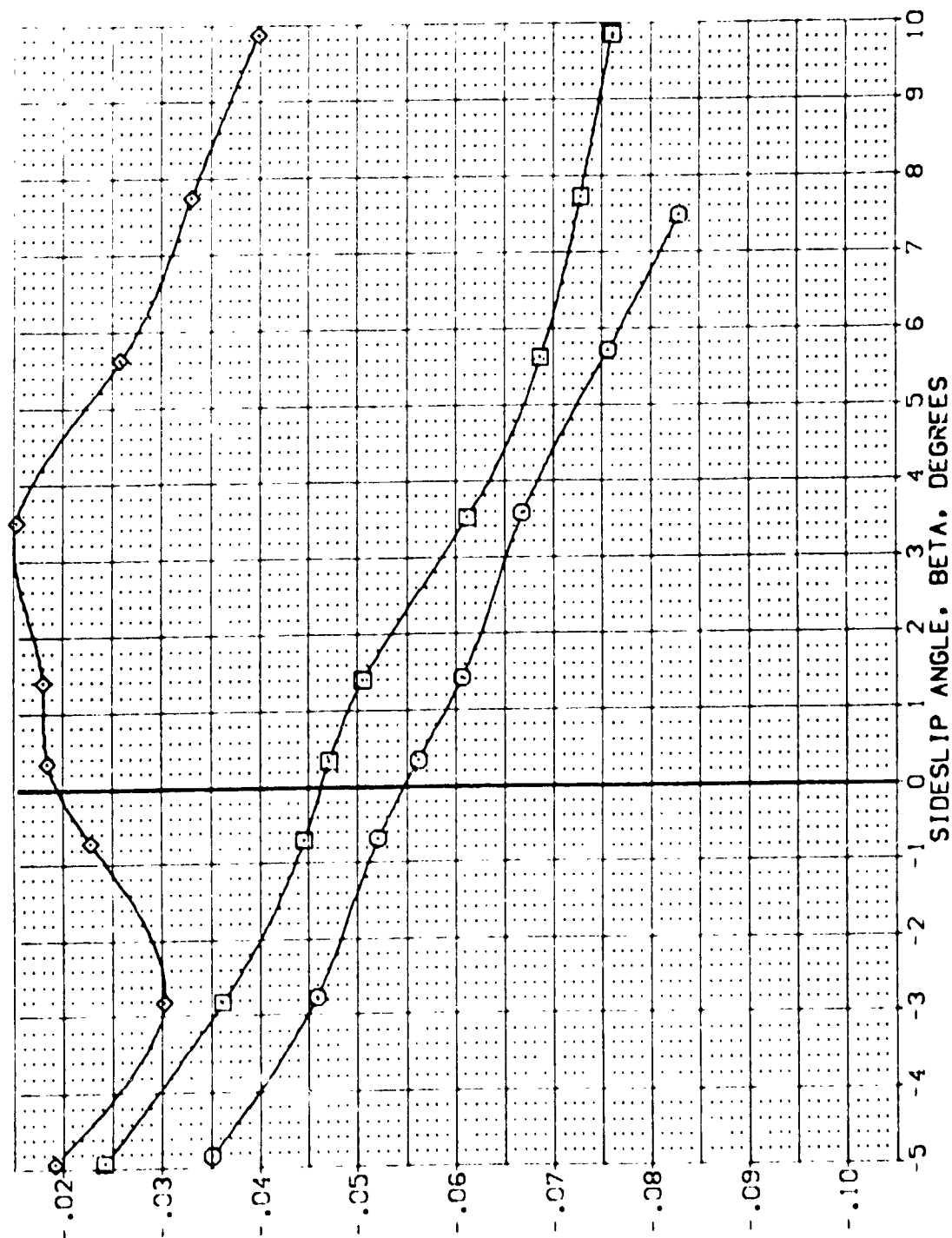


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

Symbol	Config	Description	Alpha	Rudder	Boat Lap	Speedbrake	Reference Information
(YEL051)	ARC 87-747	DA53C B C M F V	0.00	25.000	25.000	25.000	SREF 7.4210
(YEL052)	ARC 87-747	DA53C B C M F V	10.000	25.000	25.000	25.000	LREF 14.2440
(YEL053)	ARC 87-747	DA53C B C M F V	20.000	25.000	25.000	25.000	BREF 28.1004

XREF 32.3010  
 YREF 11.2500  
 ZREF 0.0000  
 SCALE 0.0000

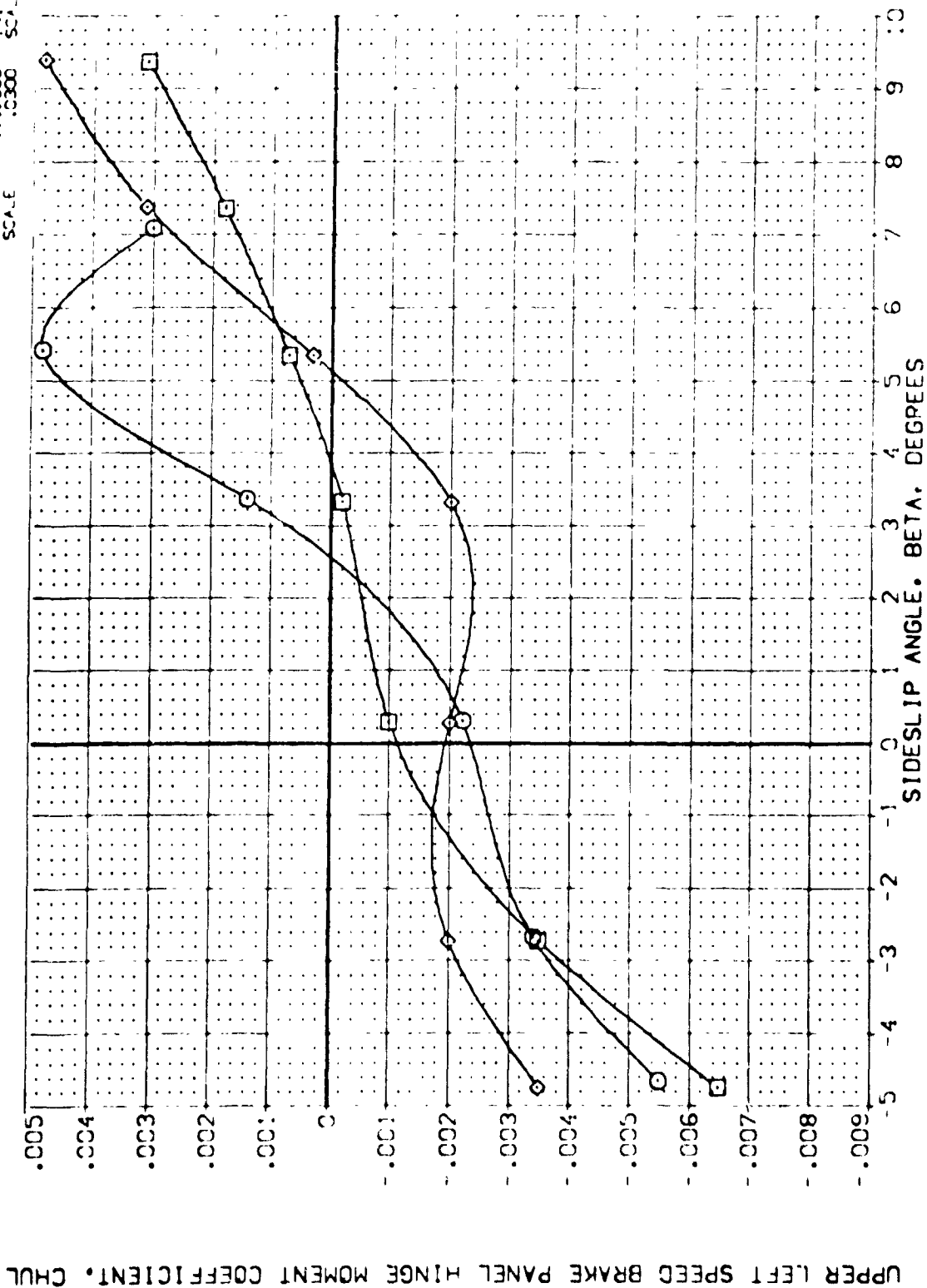


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
 (A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NOT	RV/L	ALPHA	RUDDER	BO/LAP	SPEEDBRAK	REFERENCE INFORMATION
(YEL051)	ARC 87-747 OASIC B C H F VI V	NOT	RV/L	0.000	-25.000	-11.700	25.000	SRFF 2.4210 SQ.FT.
(YEL052)	ARC 87-747 OASIC B C H F VI V	NOT	RV/L	10.000	-25.000	-11.700	25.000	LRF 14.2440
(YEL053)	ARC 87-747 OASIC B C H F VI V	NOT	RV/L	20.000	-25.000	-11.700	25.000	BRF 28.1004
								XMRP 32.3010
								YMRP 11.0000
								ZMRP 11.0000
								SCALE .0300

UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

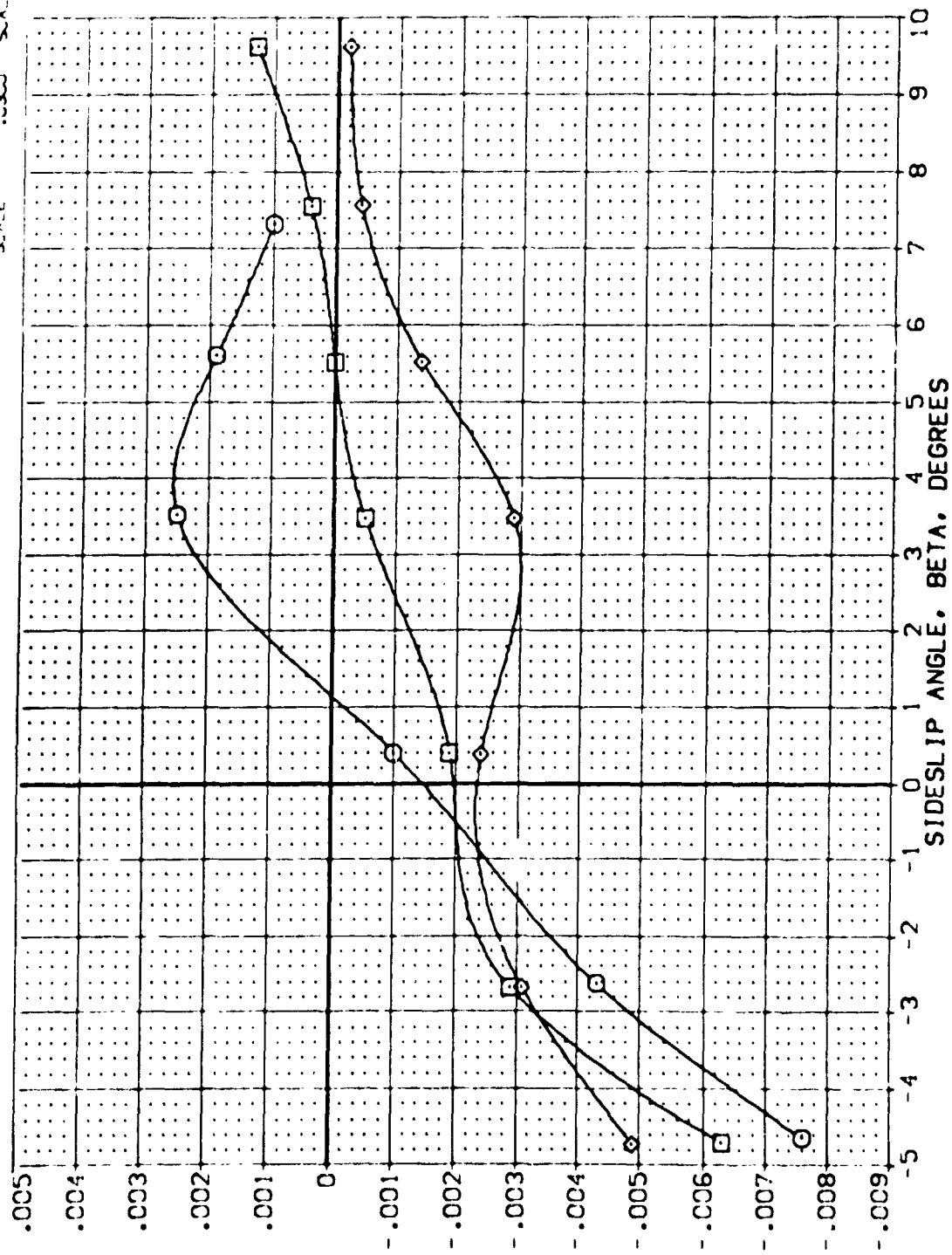


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(B)MACH = 3.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPEEDBRAKES    REFERENCE INFORMATION

(VEL051)	ARC 87-747 DASSIC B C M F VI	0.000	-25.000	-11.700	25.000	SREF	2.4210	SCALE
(VEL052)	ARC 87-747 DASSIC B C M F VI	10.000	-25.000	-11.700	25.000	LREF	14.2440	
(VEL053)	ARC 87-747 DASSIC B C M F VI	20.000	-25.000	-11.700	25.000	BREF	28.0000	
						YREF	32.3010	
						ZREF	11.0000	
						SCALE	10.000	

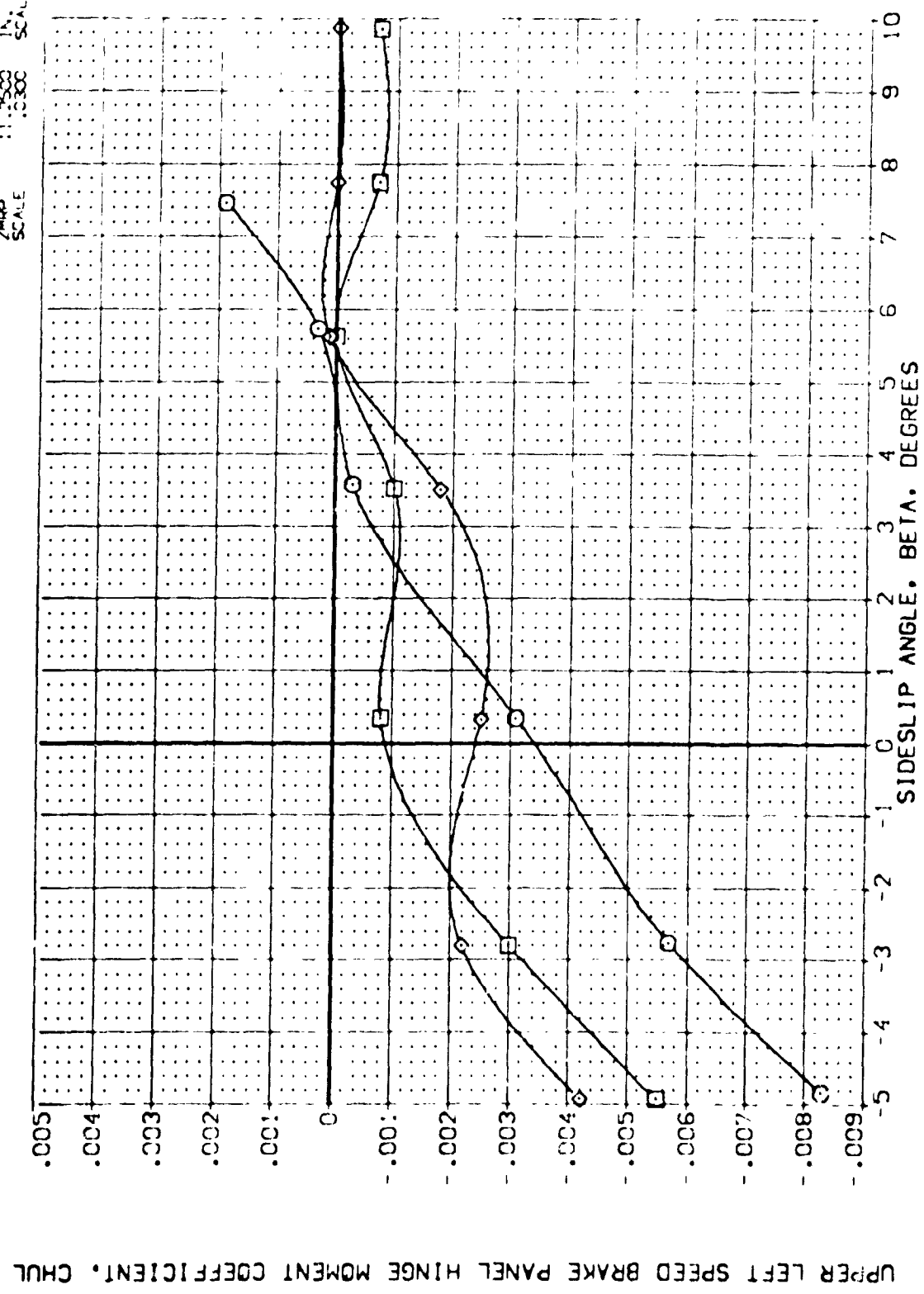


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(C)MACH = 3.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPODBRK	REFERENCE INFORMATION
(VELCS1)	ARC 87-747 DA53C B C M F VI	.000	-25.000	-11.700	25.000	SREF 2.4210 50. FT.
(VELCS2)	ARC 87-747 DA53C B C M F VI	10.000	-25.000	-11.700	25.000	LREF 14.2440 IN.
(VELCS3)	ARC 87-747 DA53C B C M F VI	20.000	-25.000	-11.700	25.000	BREF 78.1004 IN.
						YMRP 32.3010 IN.
						ZMRP .0000 IN.
						SCALE 11.2500 IN.
						SCALE .0300

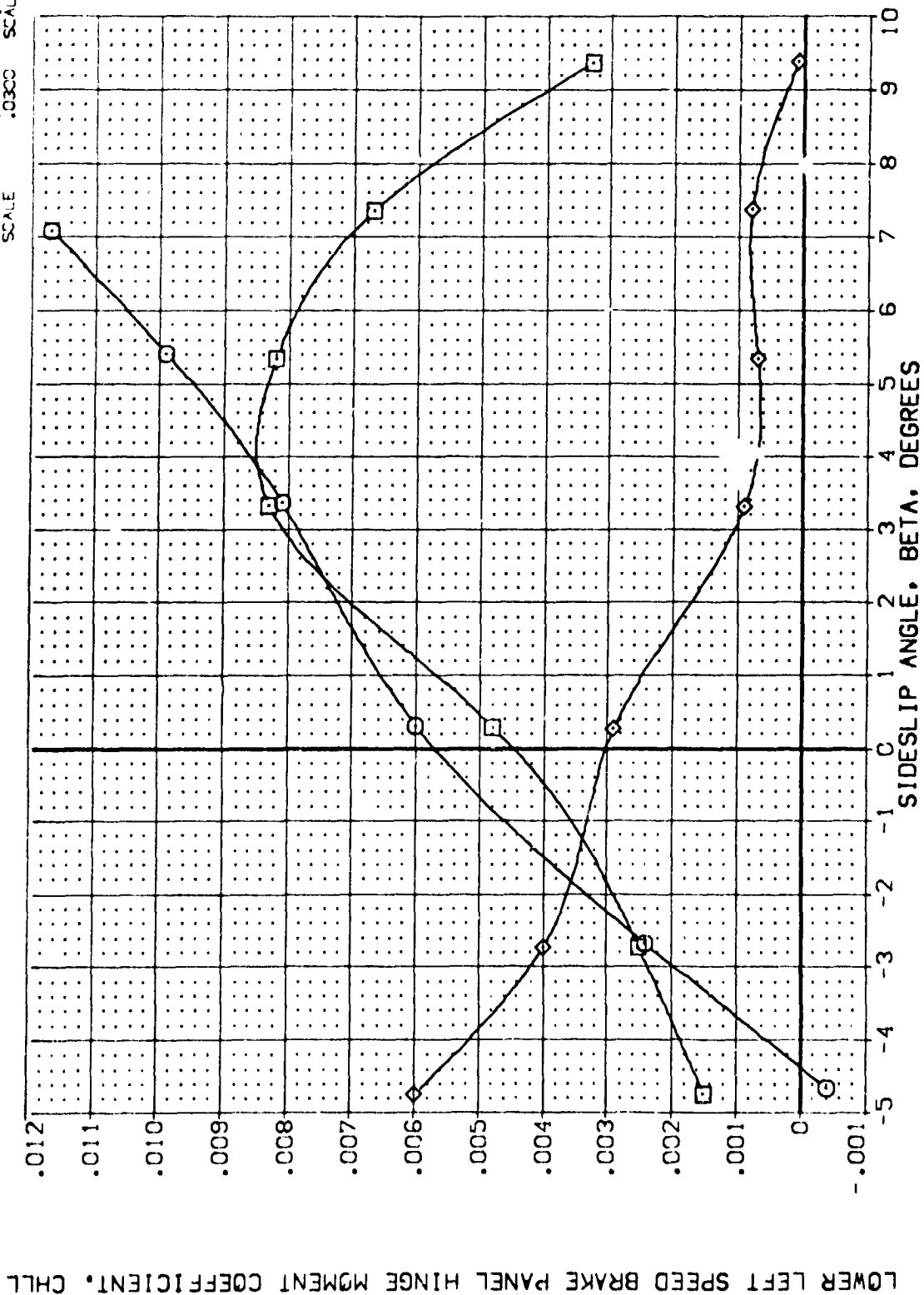


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPODBRK	REFERENCE INFORMATION
(YEL051)	ARC 87-747 BAS3C B C M F VI V	0.00	-25.000	-11.700	25.000	SREF 2.4210 SQ.FT.
(YEL052)	ARC 87-747 BAS3C B C M F VI V	10.000	-25.000	-11.700	25.000	LREF 14.2440
(YEL053)	ARC 87-747 BAS3C B C M F VI V	20.000	-25.000	-11.700	25.000	BREF 28.1004
						XREF 32.3010
						YREF 11.0000
						ZREF 11.7500
						SCALE 0.0300

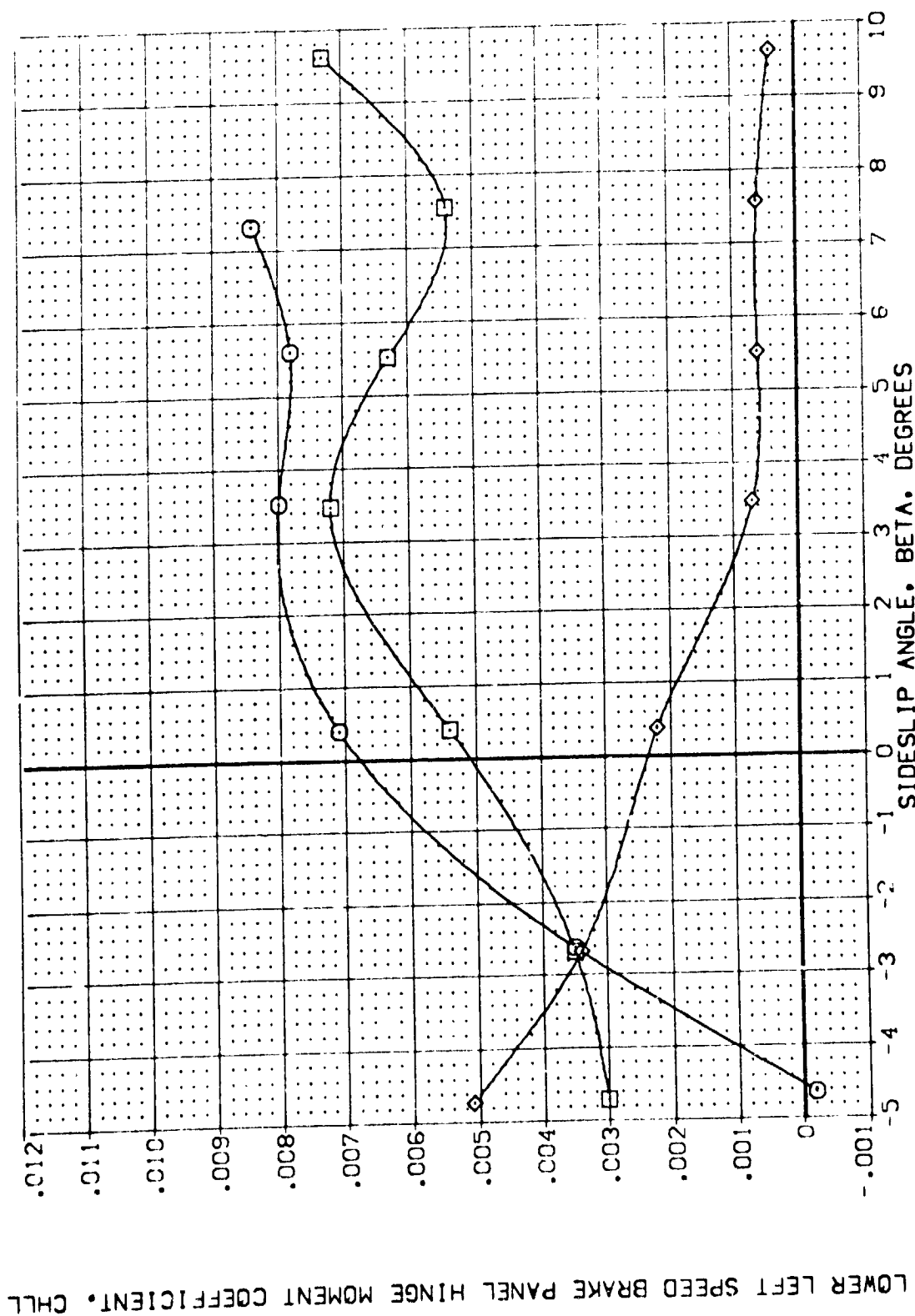


FIG. 47 RUDDER PANEL HINGEMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(B)MACH = 3.00



DATA SET SYMBOL	CONF	DESCRIPTION	ALPHA	RUDDER	BUFLAP	SPODBRK	REFERENCE INFORMATION
[VEL051]	ARC 87-747	0A53C B C M F V1	.000	-25.000	-11.700	25.000	SREF 2.4210 SC.FT.
[VEL052]	ARC 87-747	0A53C B C M F V1	10.000	-25.000	-11.700	25.000	LREF 14.2440
[VEL053]	ARC 87-747	0A53C B C M F V1	20.000	-25.000	-11.700	25.000	BREF 28.1004
							XMRP 32.3010
							YMRP 11.0000
							ZMRP 11.2500
							SCALE .0300

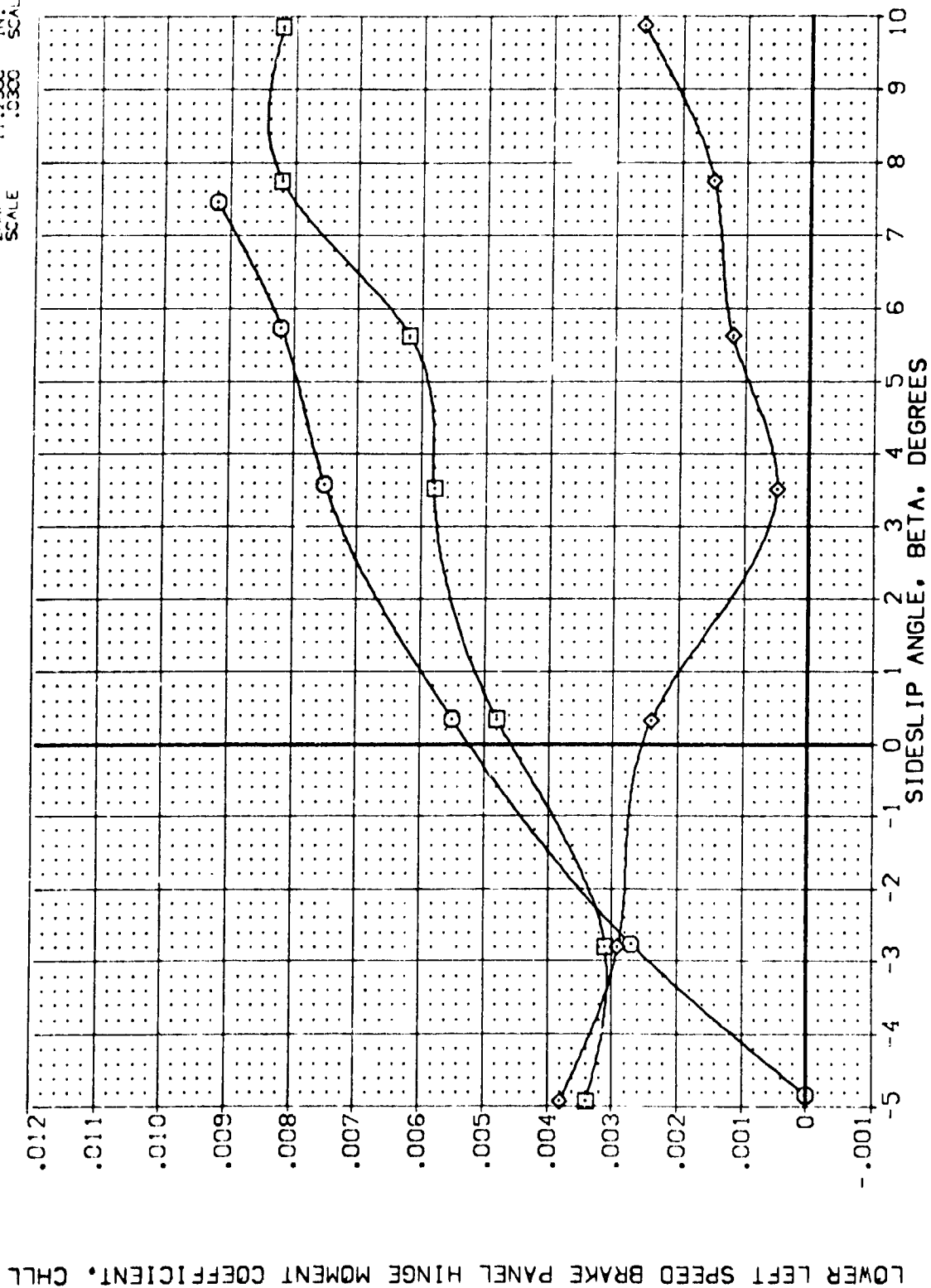


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

(C)MACH = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPEEDBRAKES    REFERENCE INFORMATION

Symbol	Configuration	Alpha	Rudder	Boflap	Speedbrakes	Ref Info
(YEL051)	ARC 87-747 BASIC B C M F VI	0.000	-25.000	-11.700	25.000	SREF 2.4210 SC.F.T.
(YEL052)	ARC 87-747 BASIC B C M F VI	10.000	-25.000	-11.700	25.000	LREF 14.2440
(YEL053)	ARC 87-747 BASIC B C M F VI	20.000	-25.000	-11.700	25.000	BREF 28.1004
						XREF 32.3010
						YREF 11.7000
						ZREF 11.7000
						SCALE 0.000

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

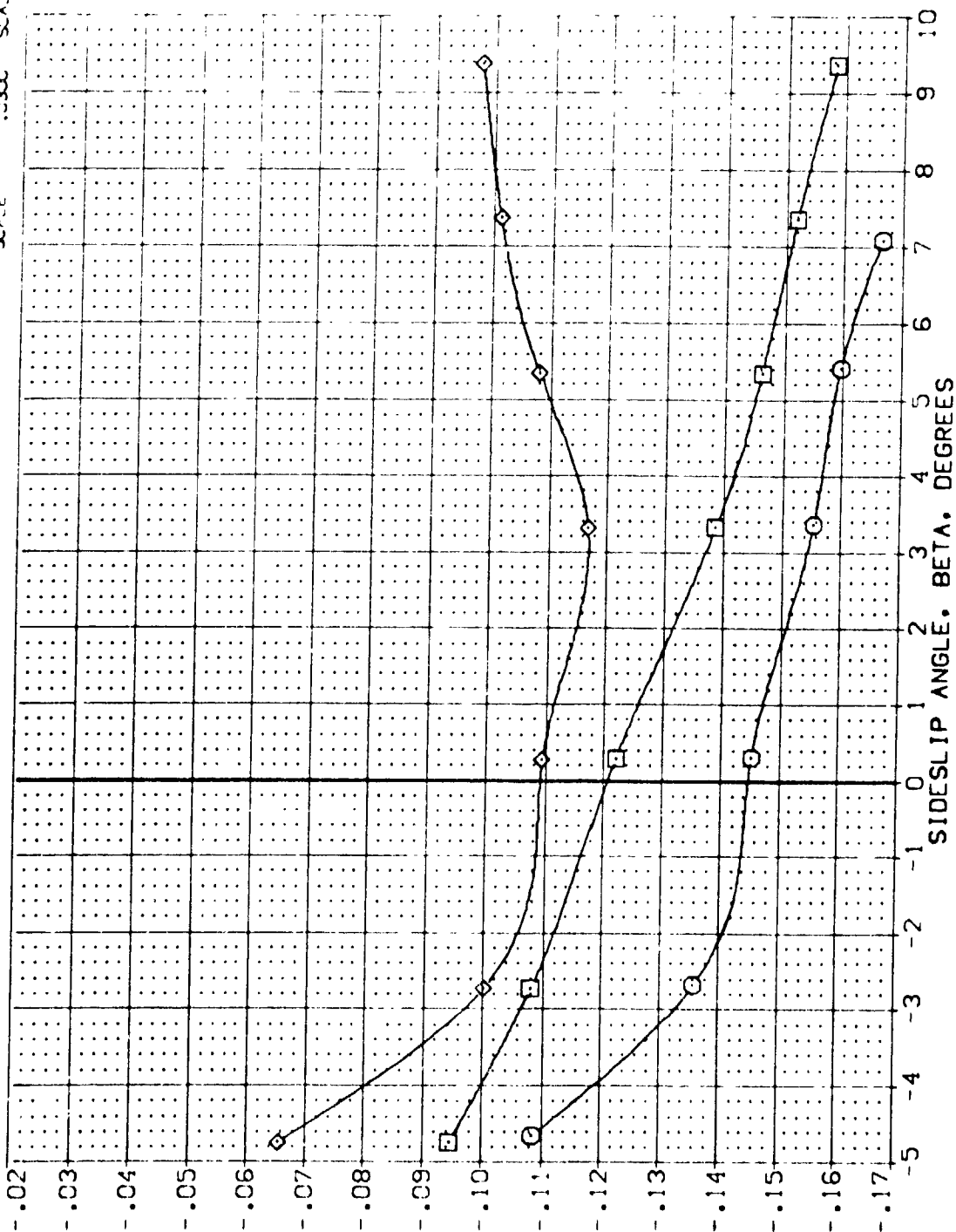


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(A)MACH = 2.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    REFERENCE INFORMATION

(VE-051)	ARC 87-747 CAS3C B C M F V1	SREF	2.4210	50.FT.
(VE-052)	ARC 87-747 CAS3C B C M F V1	LREF	14.2440	
(VE-053)	ARC 87-747 CAS3C B C M F V1	BREF	28.1004	
		XMRP	32.0000	
		YMRP	11.2500	
		ZMRP	0.0000	
		SCALE	0.0000	

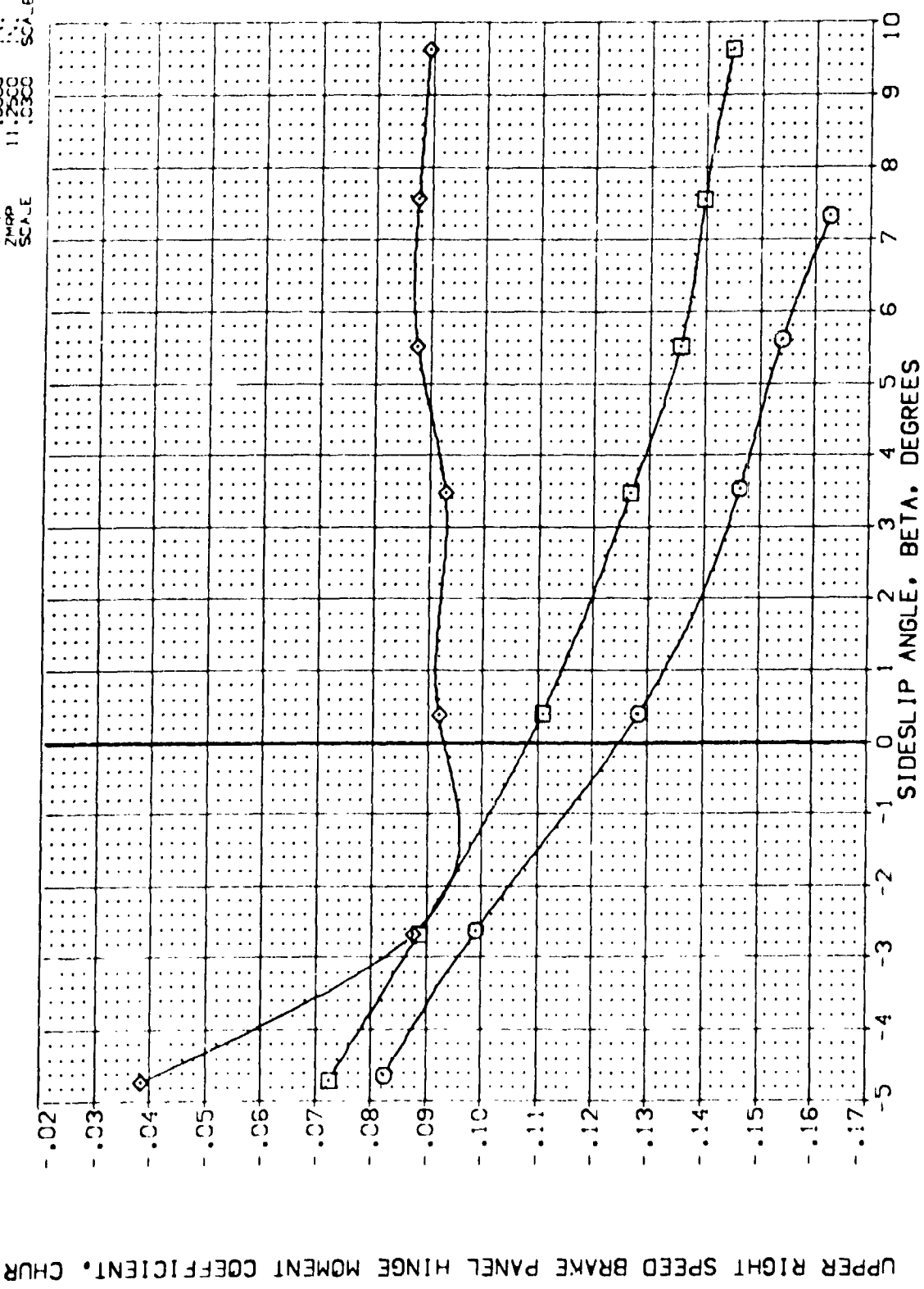


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(B)MAC = 3.00

DATA SET SYMBOL: (YEL051) (YEL052) (YEL053)

CONFIGURATION DESCRIPTION:  
 ARC 87-747 BASIC B C H F VI V NON: RV/L  
 ARC 87-747 BASIC B C H F VI V NON: RV/L  
 ARC 87-747 BASIC B C H F VI V NON: RV/L

ALPHA: 0.000 10.000 20.000

RUDDER: -25.000 -25.000 -25.000

BOFLAP: -11.700 -11.700 -11.700

SPOBRK: 25.000 25.000 25.000

REFERENCE INFORMATION:  
 SREF: 2.4210 50. FT.  
 LREF: 14.2443 IN.  
 BR: 28.1004 IN.  
 XMRP: 32.3010 IN.  
 YMRP: 0.0000 IN.  
 ZMRP: 11.2500 IN.  
 SCALE: 0.0000

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

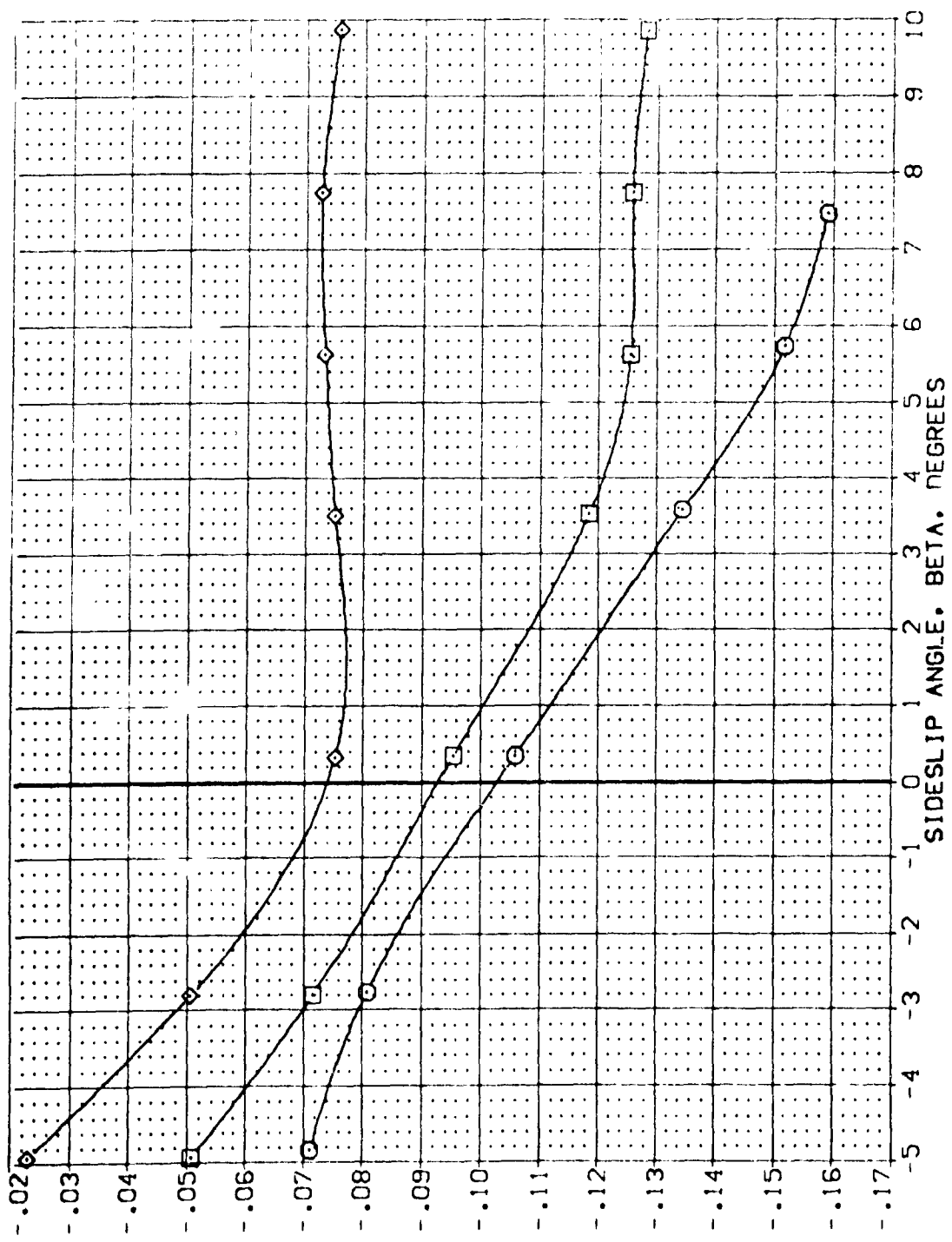


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
 (C)MACH = 3.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEEDBRAKE	REFERENCE INFORMATION
[YEL051]	ARC 87-747 CAS3C B C M F V1	0.000	-25.000	-11.700	25.000	SREF 2.4210 SQ.FT.
[YEL052]	ARC 87-747 CAS3C B C M F V1	10.000	-25.000	-11.700	25.000	LREF 14.2440 IN.
[YEL053]	ARC 87-747 CAS3C B C M F V1	20.000	-25.000	-11.700	25.000	BREF 28.1004 IN.
						XMRP 32.3010 IN.
						YMRP 0.0000 IN.
						ZMRP 11.2500 IN.
						SCALE .0300

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHL R

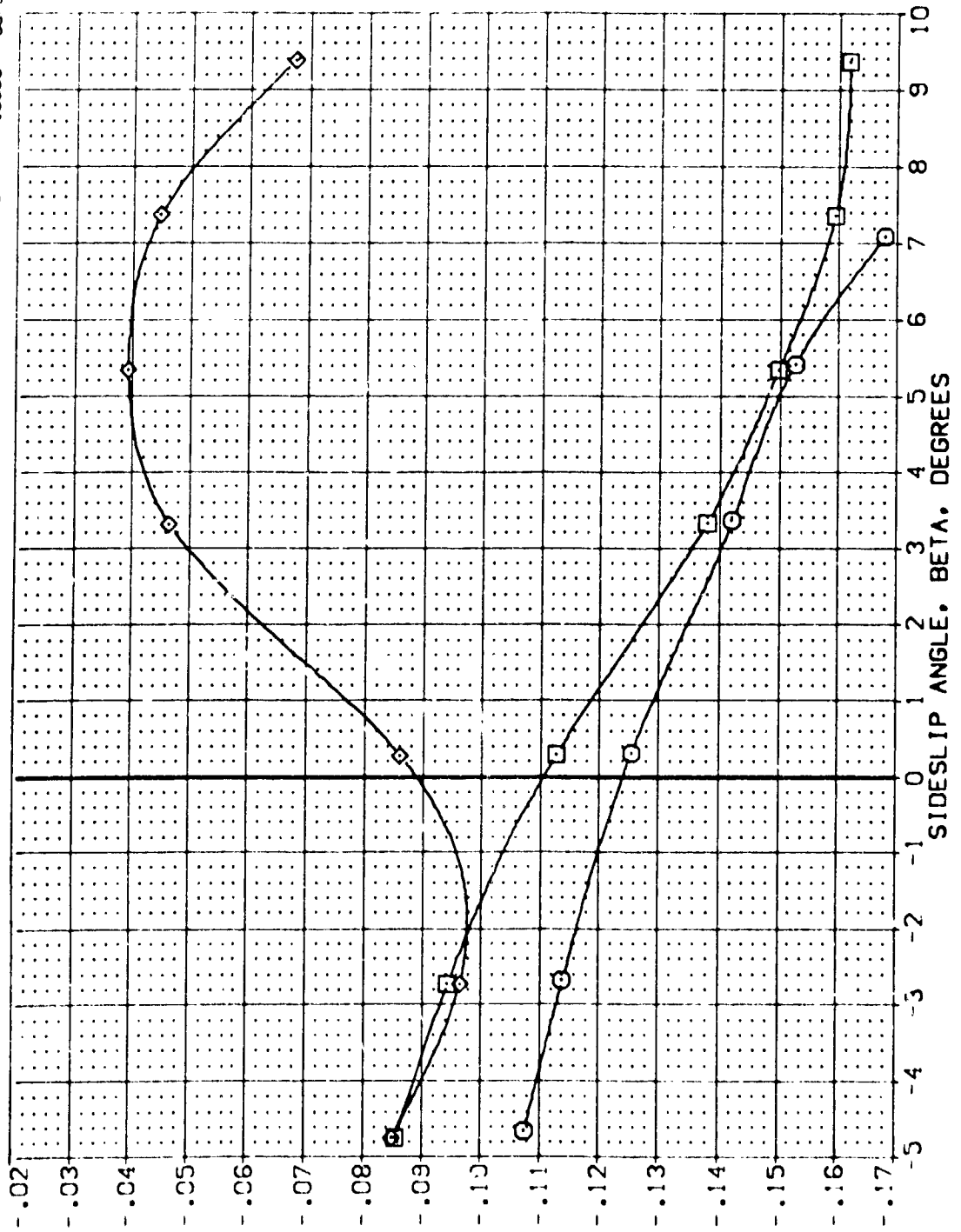


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.

[A]MACH = 2.50

DATA SET SYMBOL: (YEL051) (YEL052) (YEL053)

CONFIGURATION DESCRIPTION:  
 ARC 87-747 DAS3C B C M F VI V  
 ARC 87-747 DAS3C B C M F VI V  
 ARC 87-747 DAS3C B C M F VI V

ALPHA: .000, 10.000, 20.000

RUDDER: -25.000, -25.000, -25.000

BOFLAP: -11.700, -11.700, -11.700

SPOBRK: 25.000, 25.000, 25.000

REFERENCE INFORMATION:  
 SREF: 2.42:0 50.0 FT.  
 LREF: 14.2440 IN.  
 BREF: 28.1004 IN.  
 XMRP: 32.30:0 IN.  
 YMRP: .0000 IN.  
 ZMRP: 11.2500 IN.  
 SCALE: .0300

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

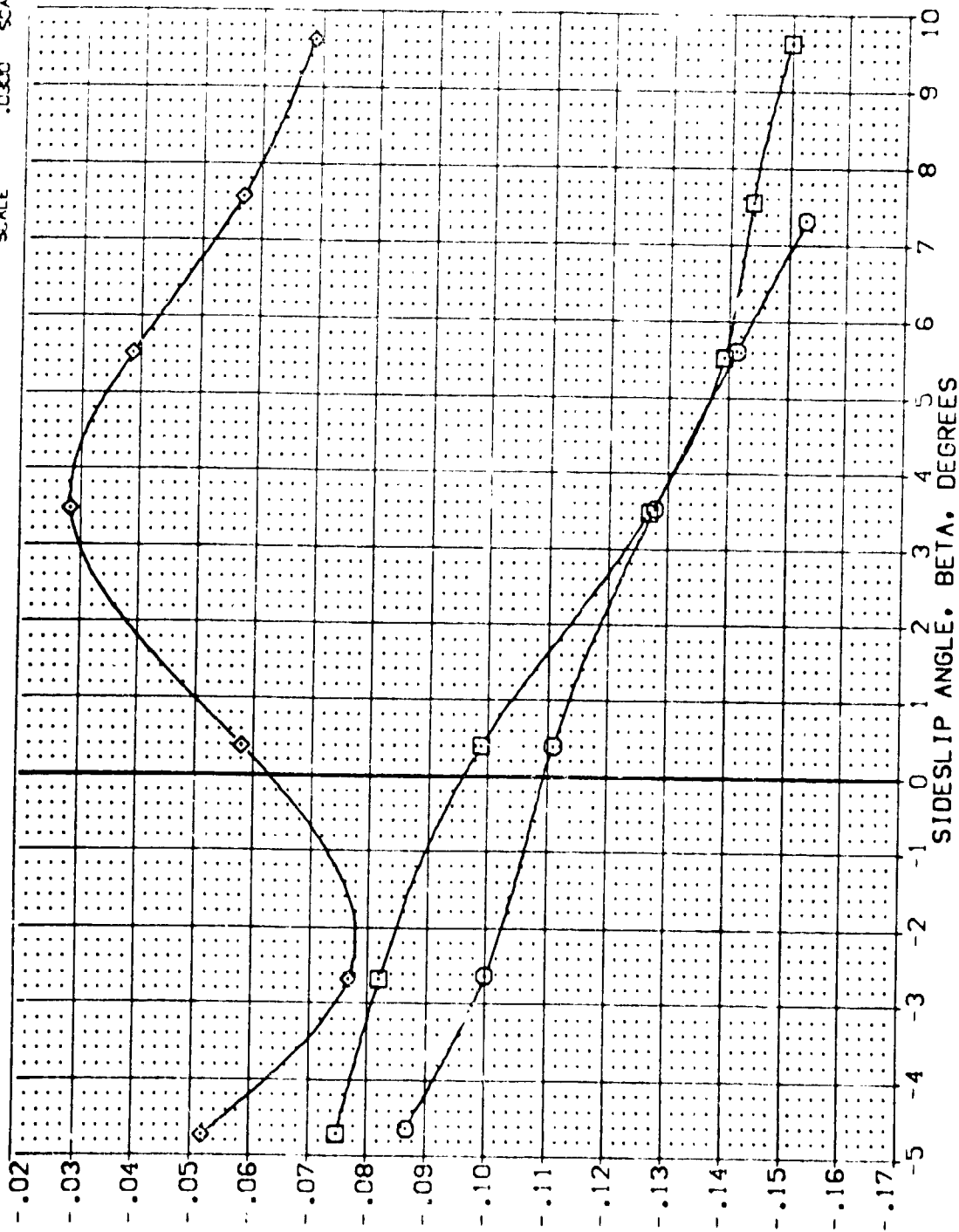


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
 (B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[YEL051] Q ARC 87-747 CASC B C M F V V

[YEL052] S ARC 87-747 CASC B C M F V V

[YEL053] X ARC 87-747 CASC B C M F V V

NON: RN/L

NON: RN/L

NON: RN/L

ALPHA RUDDER BOFLAP SPOBRK

.000 -25.000 -11.700 25.000

10.000 -25.000 -11.700 25.000

20.000 -25.000 -11.700 25.000

REFERENCE INFORMATION

SREF 2.4212 SQ.FT.

REF 14.2413

BRF 28.1334

MRP 32.3013

YMRP .0000

ZMRP .0000

SCALE 11.2500

SCALE .0300

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CLRL

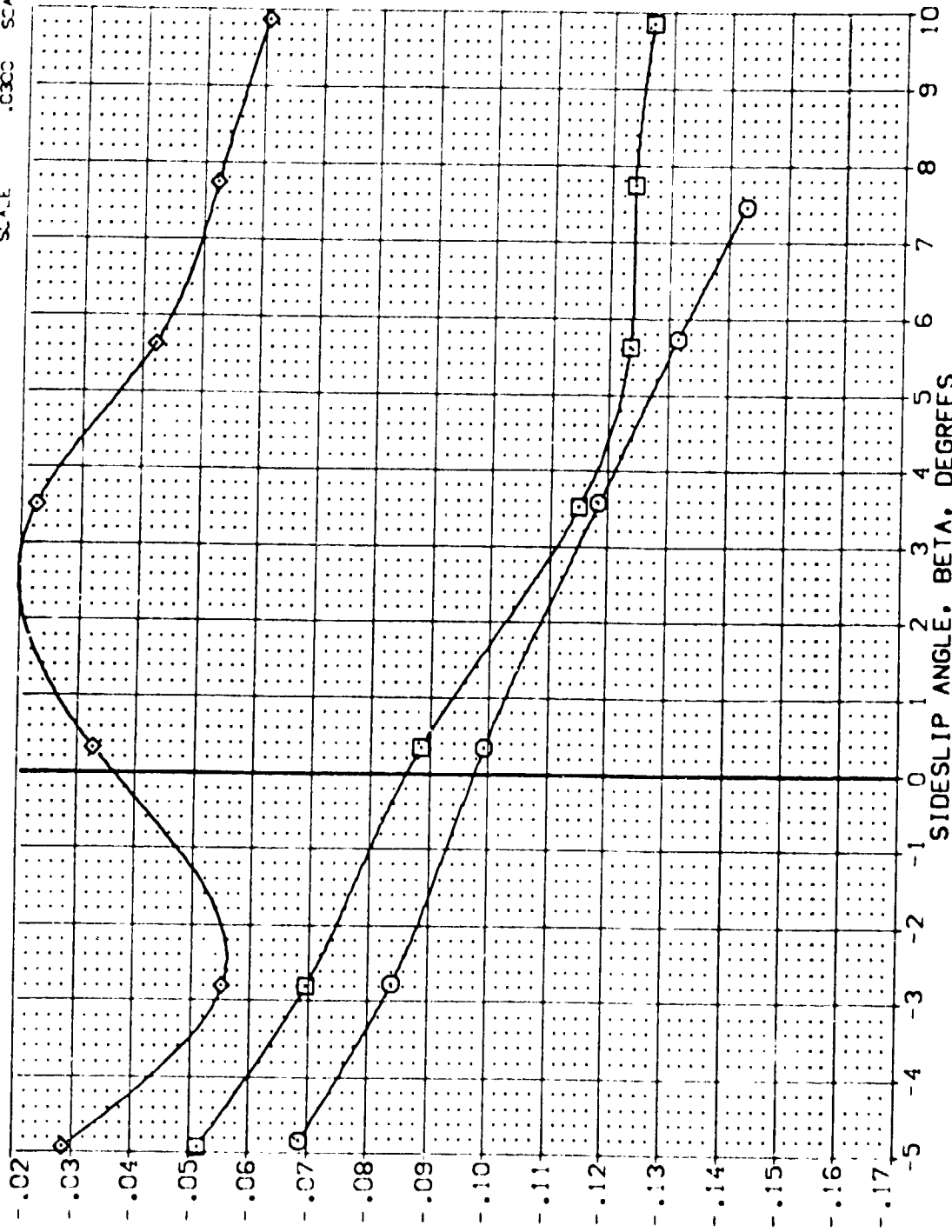


FIG. 47 RUDDER PANEL HINGEMOMENTS VERSUS ANGLE OF ATTACK, SPEEDBRAKE = 25 DEG.  
(C)MACH = 3.50

SYMBOL  
○  
□  
◇

PARAMETRIC VALUES  
ALPHA .000  
10.000  
20.000  
MACH 2.500  
ELEVON .000  
BDF LAP -11.700  
ELEV-L .000  
BETA .000  
AILRON .000  
SPDRBK 45.000  
ELEV-R .000

REFERENCE INFORMATION  
SREF 2.4210  
LREF 14.2440  
BREF 28.1004  
XREF 37.3010  
YREF .0000  
ZREF 11.2500  
SCALE .0300

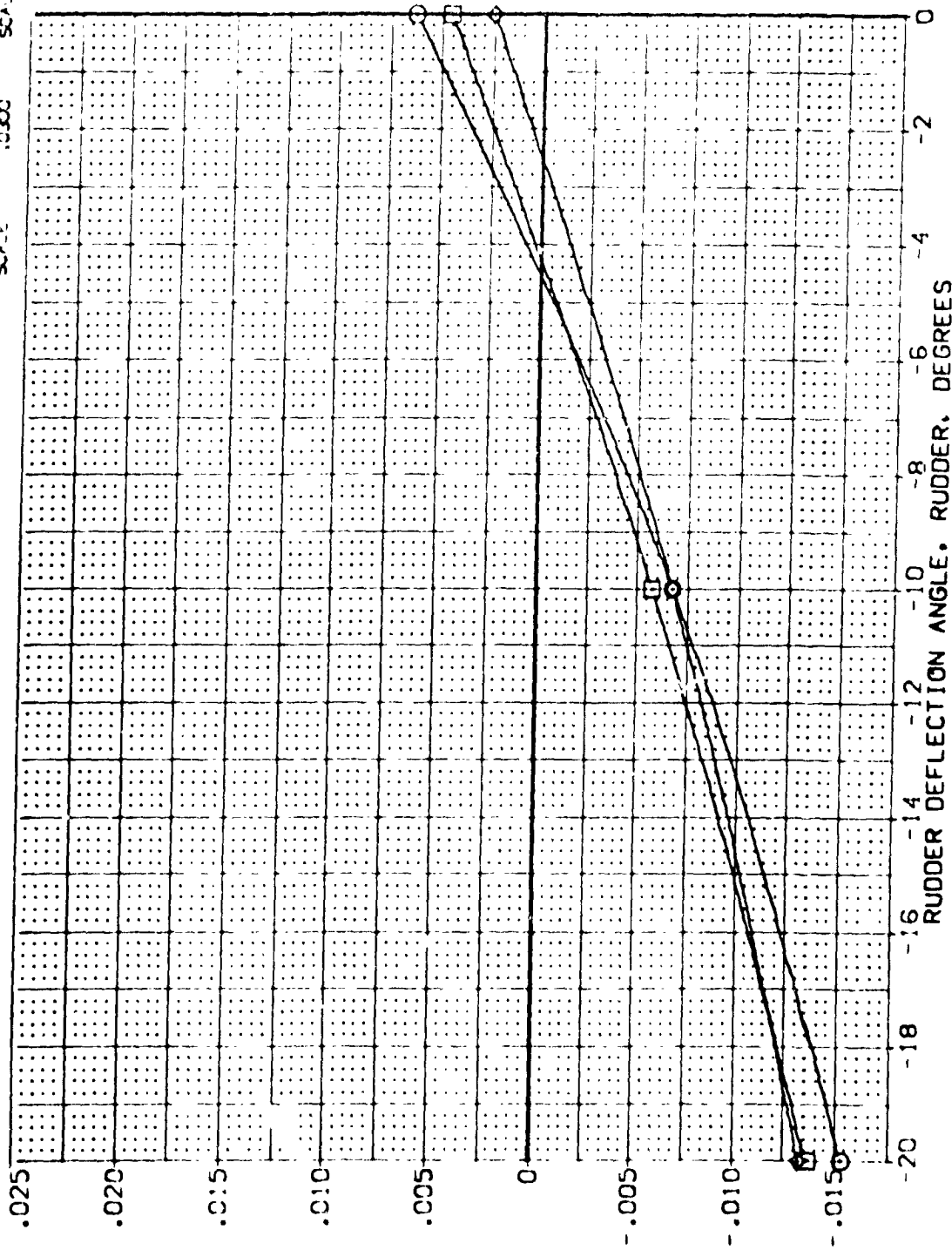


FIG. 48 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 55 DEGREES





(DELO32)

ARC 87-747 0A53C B C M F W V NOM. RN/L

SYMBOL  
 ○  
 □  
 ◇

PARAMETRIC VALUES  
 MACH 3.500 BETA .000  
 ELEVON .000 AILRON .000  
 BOFLAP -11.700 SPEEDK 46.000  
 ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
 SREF 2.4210 SCALE  
 LREF 14.2440  
 BREF 28.1000  
 VREF 32.3000  
 ZREF 11.0000  
 ZREF 11.2500  
 SCALE .0300

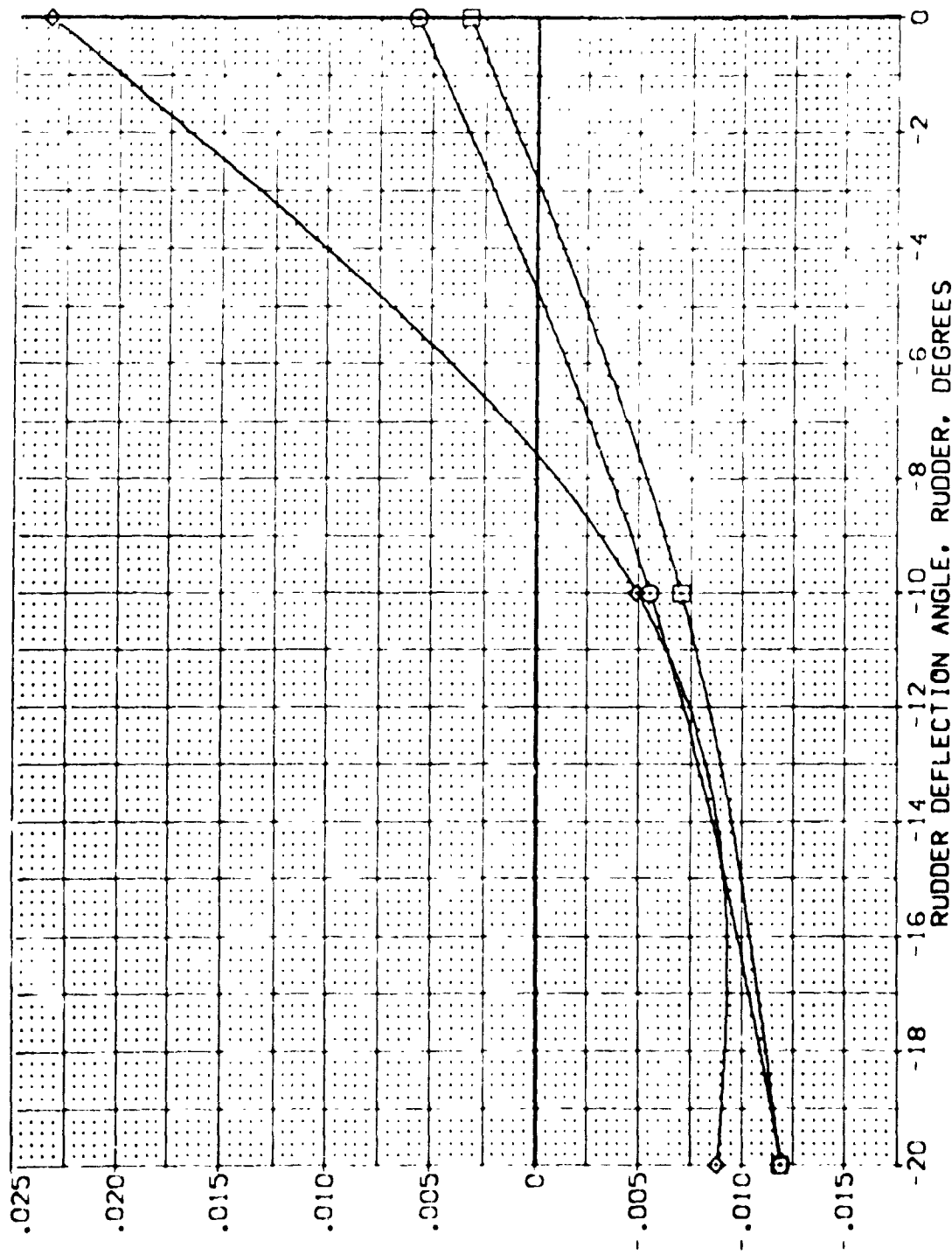


FIG. 48 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 55 DEGREES

(DELO32)

ARC 87-747 0A53C B C M F W1 V NOM. RN/L

SYMBOL  
○  
□  
◇

PARAMETRIC VALUES

ALPHA	MAG	ELEVON	BOFLAP	ELEV-L	BETA	AILRON	SPOBRK	ELEV-R
.000	2.500	.000	.000	.000	.000	.000	.000	.000
10.000	.000	.000	.000	.000	.000	.000	.000	.000
20.000	.000	.000	.000	.000	.000	.000	.000	.000

REFERENCE INFORMATION  
SRF 2.421C SQ.FT.  
LRF 14.244C  
BRF 28.1004  
XREF 32.301C  
YREF .000C  
ZREF .000C  
SCALE 11.250C

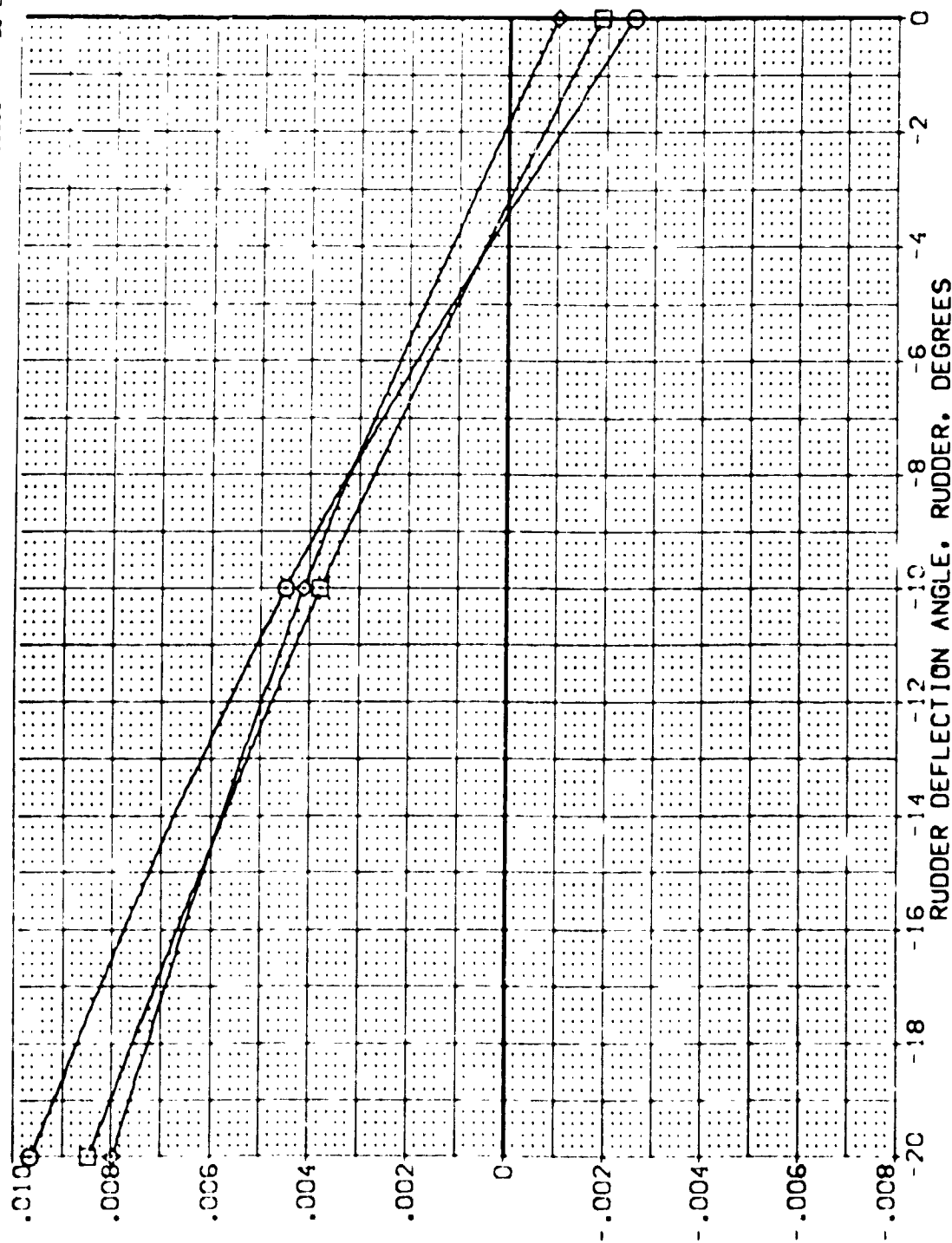


FIG. 48 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 55 DEGREES

ARC 87-747 0A53C B C M F W I V NOM. RN/L (COELC32)

SYMBOL  
○ □ ◇

PARAMETRIC VALUES  
ALPHA .000 MACH 3.000 BETA .000  
10.000 ELEVON .000 AILRON .000  
20.000 BOFLAP -11.700 SPEEDRK 46.000  
ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
SREF 2.4210 SQ.FT.  
LREF 14.2440  
BREF 28.1004  
YREF 32.3010  
ZREF 11.2500  
SCALE .0300

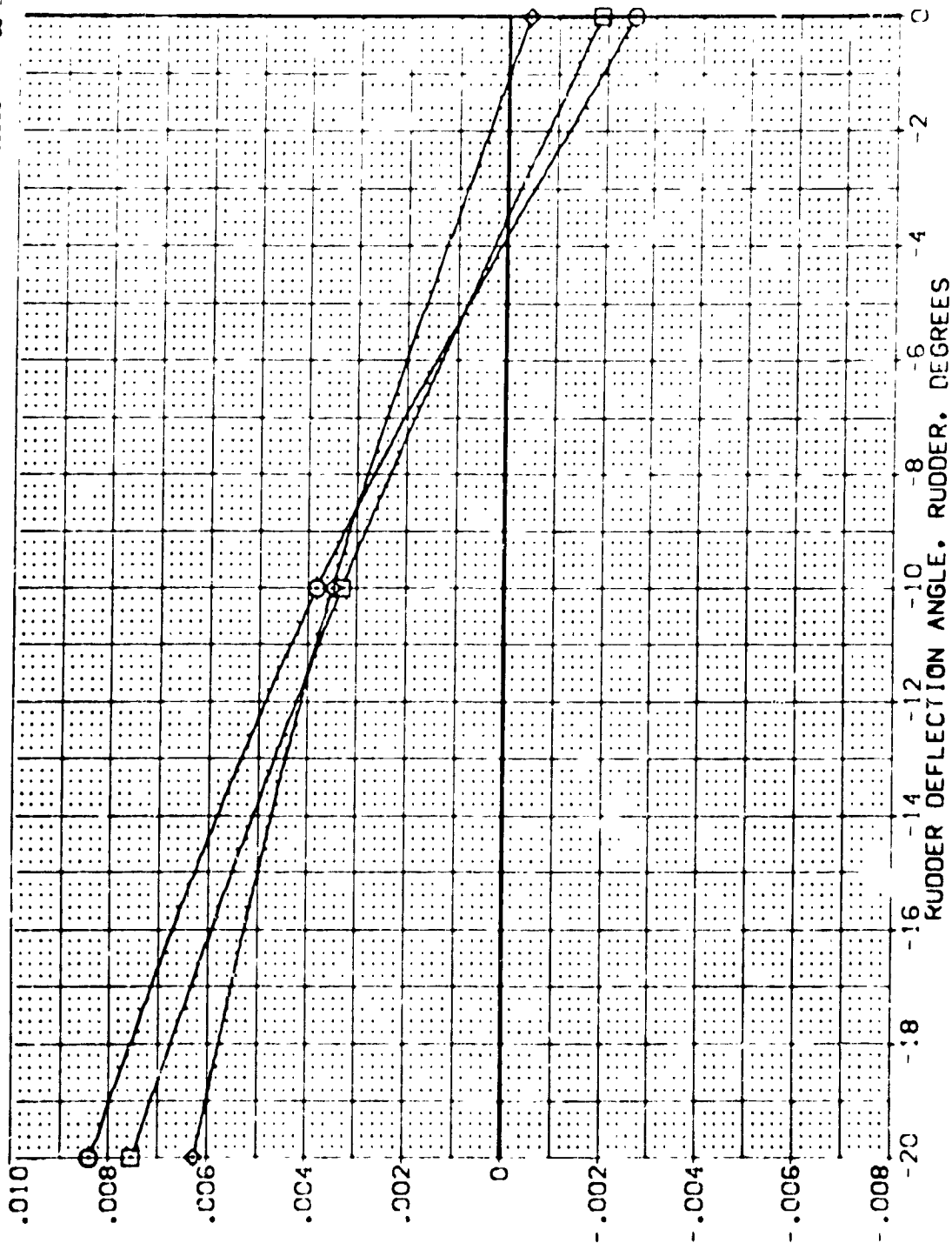


FIG. 48 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 55 DEGREES

ARC 87-747 0A53C B C M F W1 V NOM. RN/L (DEL032)

SYMBOL  
 ○  
 □  
 ◇

PARAMETRIC VALUES  
 ALPHA .000 MACH 3.500 BETA .000  
 10.000 ELEVON .000 AILRON .000  
 20.000 DEF LAP -11.700 SPEEDRK 46.000  
 ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
 SREF 2.4210 SQ. FT.  
 LREF 14.2440 IN.  
 BREF 26.7004 IN.  
 XMRP 32.3310 IN.  
 YMRP .0000 IN.  
 ZMRP 11.2500 IN.  
 SCALE .0300

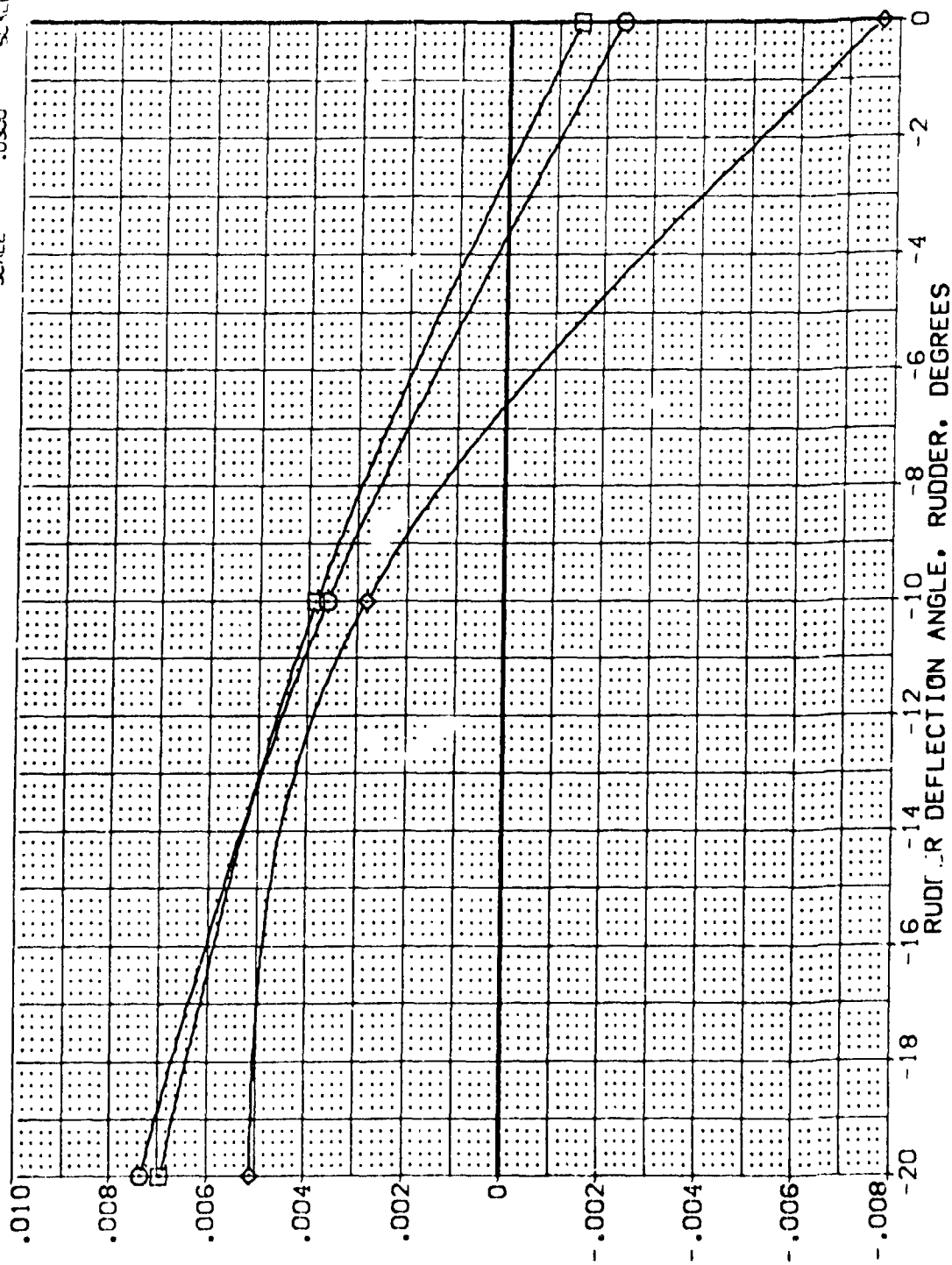


FIG. 48 EFFECT OF RUDDER DEFLECTION ON VERTICAL TAIL, SPEEDBRAKE = 55 DEGREES

ARC 87-747 0A53C B C M F W1 V NCM. RN/L (EEL032)

SYMBOL

PARAMETRIC VALUES

ALPHA .000 MACH 2.500 BETA .000  
10.000 ELEVON .000 AILRON .000  
20.000 BOFLAP -11.700 SPEEDRK 46.000  
ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
SPEED 2.4210 SQ. FT.  
REF 4.2440  
BOFLAP 28.1004  
XMRP 32.3610  
YMRP .0000  
ZMRP 11.7000  
SCALE .0300

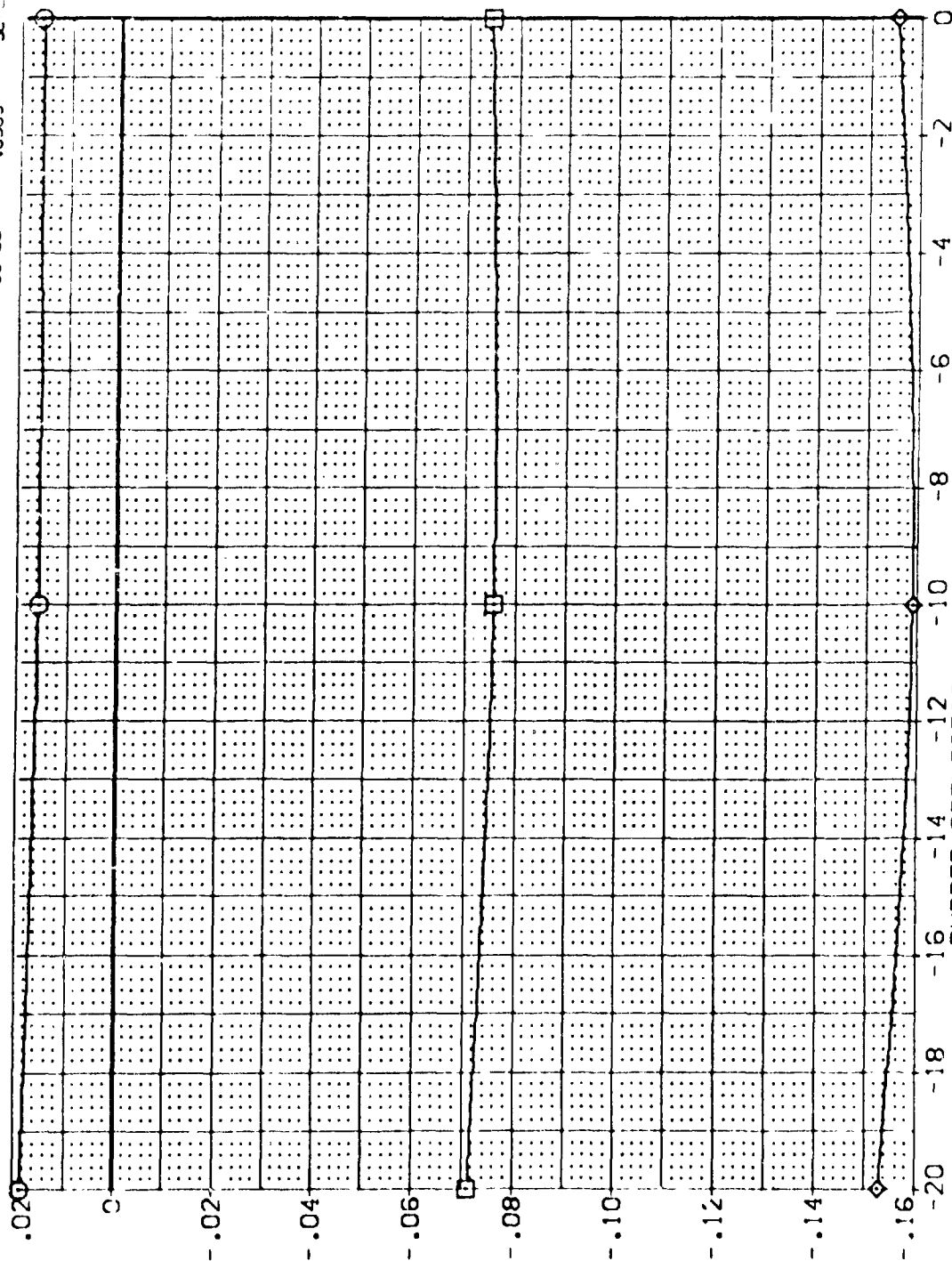


FIG. 49 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMOMENT, SPEEDBRAKE = 55 DEG

SYMBOL  
 ○  
 ◇  
 □

PARAMETRIC VALUES  
 ALPHA .000 MACH 3.000 BETA .000  
 ELEVON .000 ELEVON .000  
 20.000 90FLAP -11.700 SPEEDBRK 46.000  
 ELEV-R .000 ELEV-R .000

REFERENCE INFORMATION  
 SREF 2.4210 SC.FT.  
 REF 14.2440  
 EXE 28.1004  
 APP 32.3210  
 APP .0000  
 APP .0000  
 SCALE 11.2500  
 SCALE 10.300

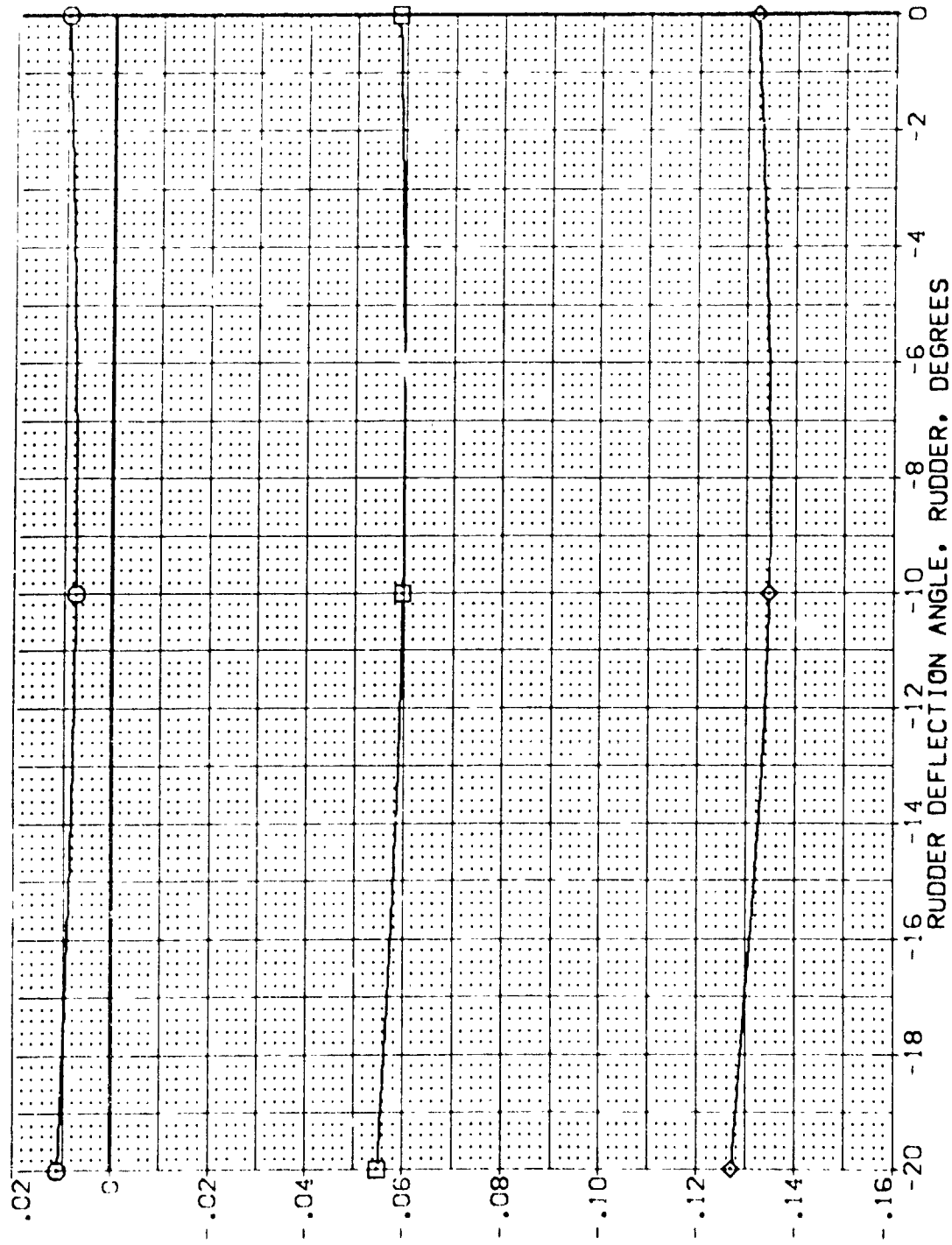


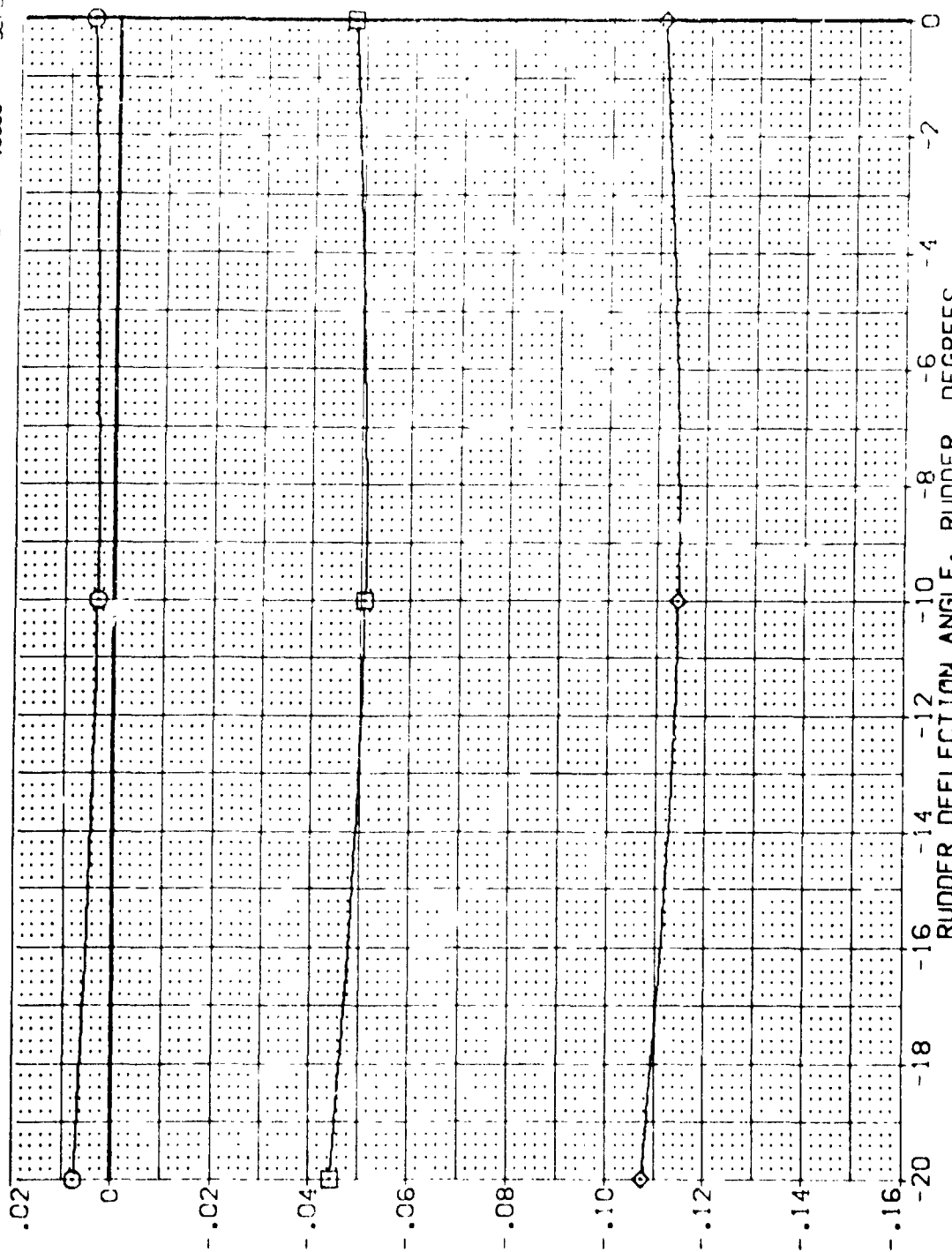
FIG. 49 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMENT, SPEEDBRAKE = 55 DEG

SYMBOL  
 ○ □ ◇

ALPHA  
 .000  
 10.000  
 20.000

PARAMETRIC VALUES  
 MACH 3.500  
 ELEVON .000  
 BOFLAP -11.700  
 ELEV-L .000  
 BETA .000  
 AILRON .000  
 SPEEDRK 46.000  
 ELEV-R .000

REFERENCE INFORMATION  
 SREF 2.4210  
 LREF 14.2440  
 BREF 28.1004  
 XMRP 37.3010  
 YMRP .0000  
 ZMRP 11.2500  
 SCALE .0300  
 SQ.FT.  
 IN.  
 IN.  
 IN.  
 IN.  
 IN.  
 IN.



TOTAL ELEVON HINGE MOMENT COEFFICIENT, CHET

FIG. 49 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMOMENT, SPEEDBRAKE = 55 DEG



A 87 150 3A530 B C M F W1 V NOM. RN/L (EEL032)

SYMBOL

ALPHA

0.000  
10.000  
20.000

M OH  
ELEV  
BOFLAP  
ELEV-L

PARAMETRIC VALUES

2.500  
.000  
-11.700  
.000

ETA  
AILRON  
SPOBRK  
ELEV-R

REFERENCE INFORMATION  
SREF 2.4210 SQ.FT.  
LREF 14.2440  
BREF 28.1004  
XREF 32.3010  
YREF 0.0000  
ZREF 11.2500  
SCALE .0300

INBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHEI

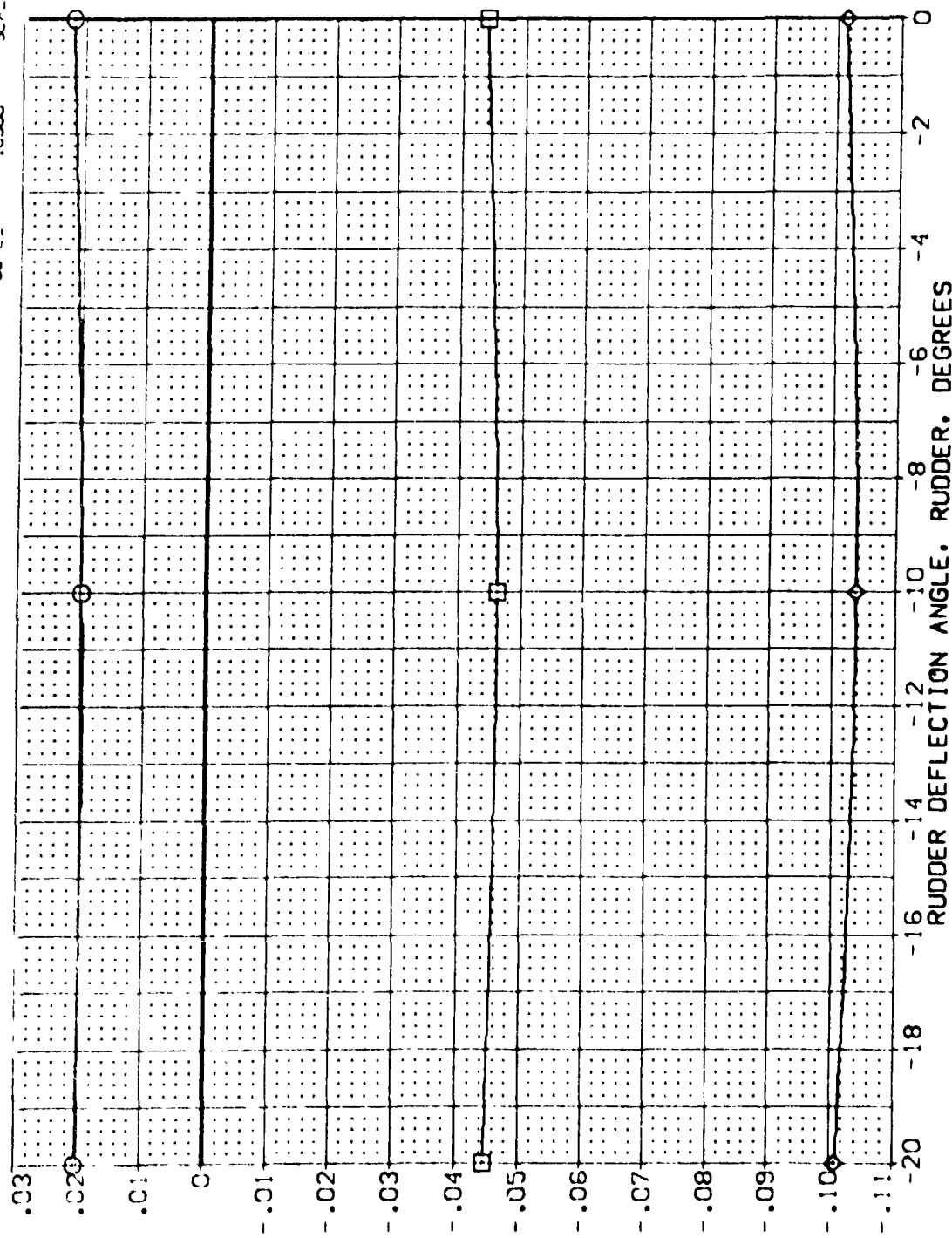


FIG. 49 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMENT, SPEEDBRAKE = 55 DEG

SYMBOL  
 ○  
 □  
 ◇

PARAMETRIC VALUES  
 ALPHA .000 MACH 3.000 BETA .000  
 10.000 ELEVON .000 AILRON .000  
 20.000 BOFLAP -11.700 SPEEDK 46.000  
 ELEV-L .000 ELEV-R .000

REFERENCE INFORMATION  
 SREF 2.4210 SQ.FT.  
 LREF 14.244C  
 BREF 28.1004  
 XMRP 32.3010  
 YMRP .0000  
 ZMRP 11.2500  
 SCALE .0300

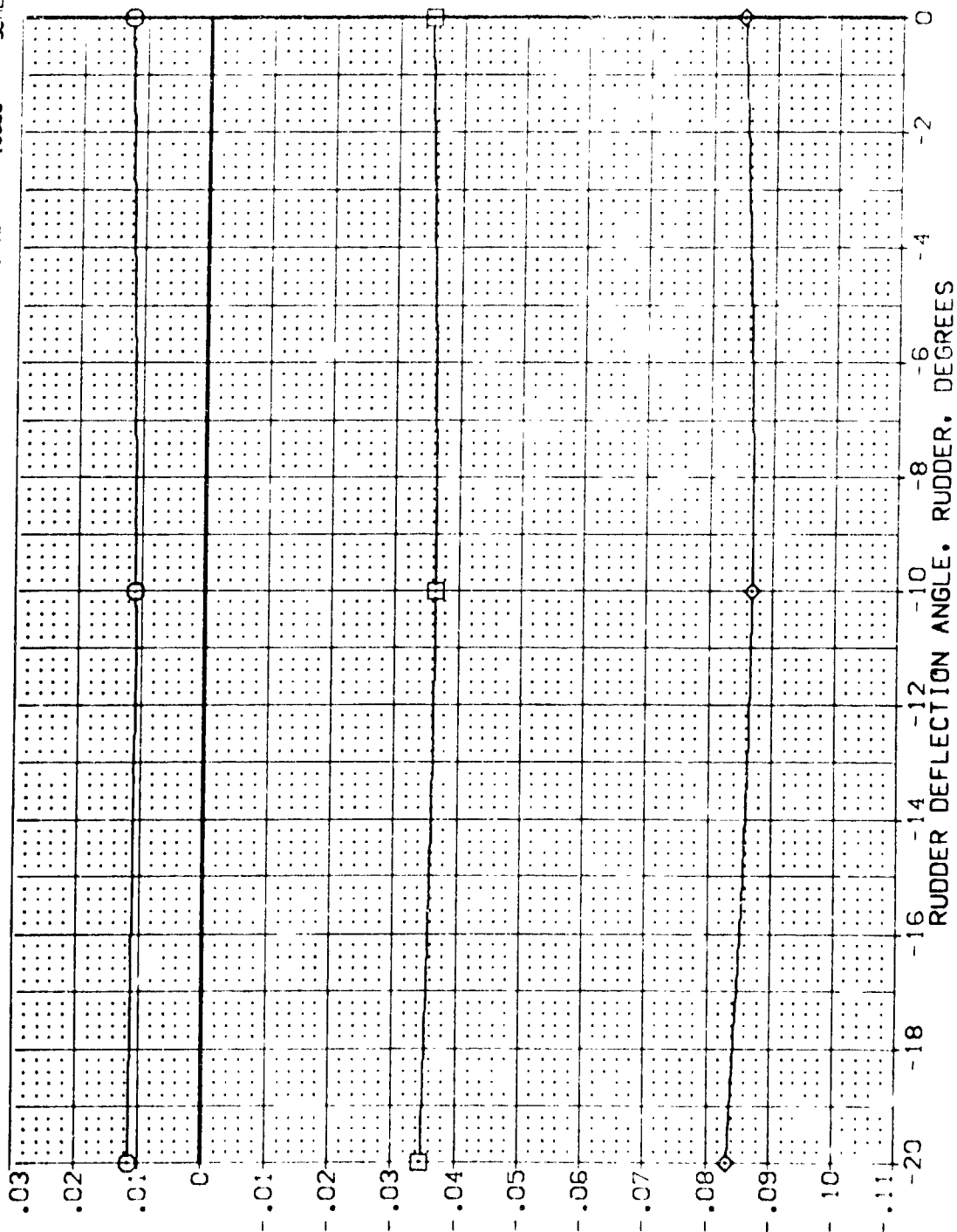
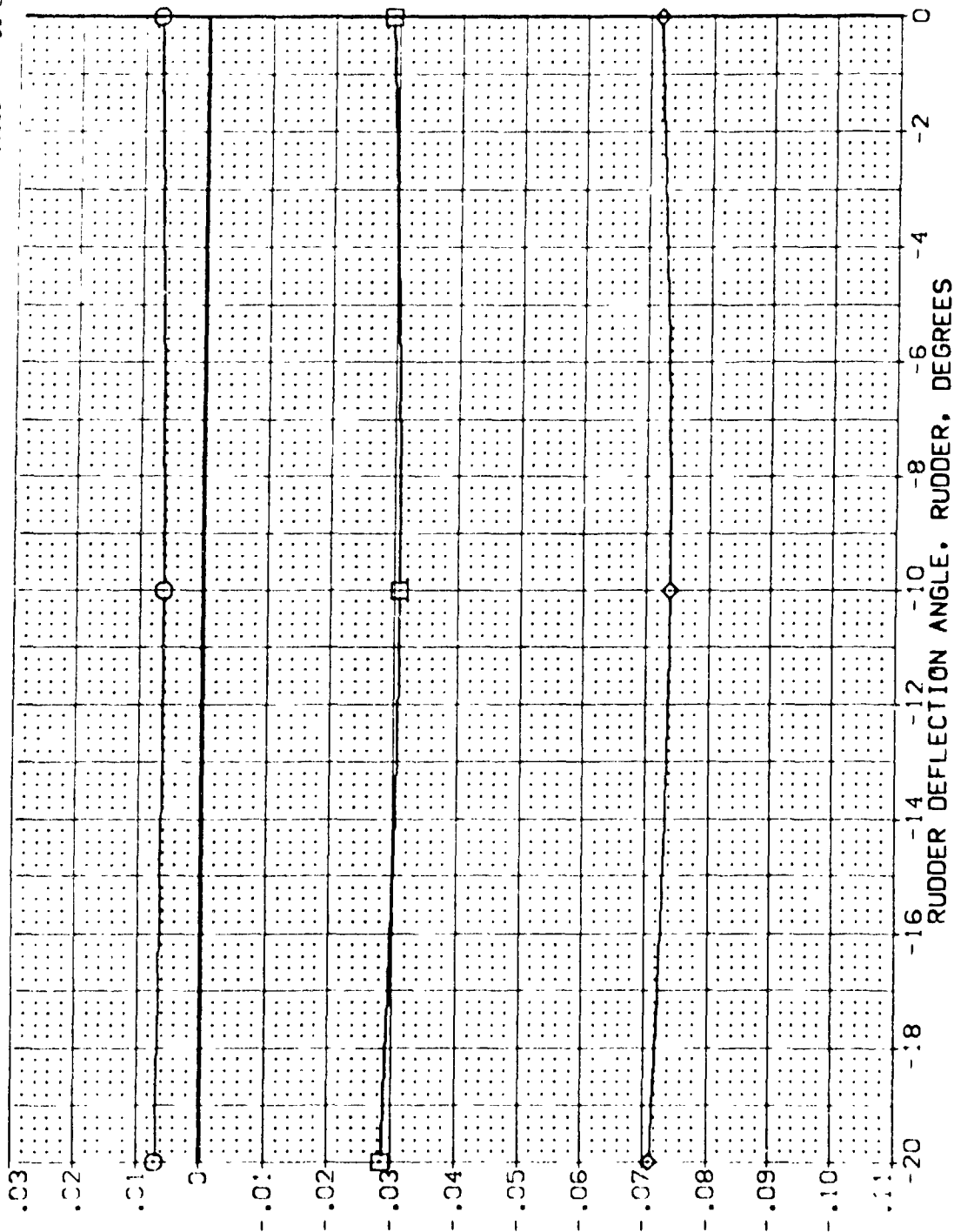


FIG. 49 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGE MOMENT, SPEEDBRAKE = 55 DEG

87-747 JA53C B C M F W: V NOM. RN/L (EEL032)

SYMBOL  
 ALPH  
 .000  
 10.000  
 20.000  
 MACH  
 ELEVON  
 BDF LAP  
 ELEV-L  
 3.500  
 .000  
 -11.700  
 .000  
 BETA  
 AILRON  
 SPOBRK  
 ELEV-R  
 .000  
 .000  
 46.000  
 .000  
 REFERENCE INFORMATION  
 SREF  
 DEG  
 BREF  
 INCH  
 YREF  
 INCH  
 ZREF  
 INCH  
 SCALE  
 2.4210  
 14.2440  
 28.1000  
 32.3210  
 .0000  
 11.7900  
 1.0000



INBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHeI

FIG. 49 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMOMENT, SPEEDBRAKE = 55 DEG

SYMBOL

ALPHA  
.000  
10.000  
20.000

MACH  
ELEVON  
BOFLAP  
ELEV-L

PARAMETRIC VALUES  
2.500 BETA  
.000 AILRON  
-11.700 SPOBRK  
.000 ELEV-R

.000  
.000  
46.000  
.000

REFERENCE INFORMATION  
SREF 2.4210 50.17  
LREF 14.2442  
BREF 28.1004  
VREF 32.3010  
ZREF 11.0000  
SCALE .0300

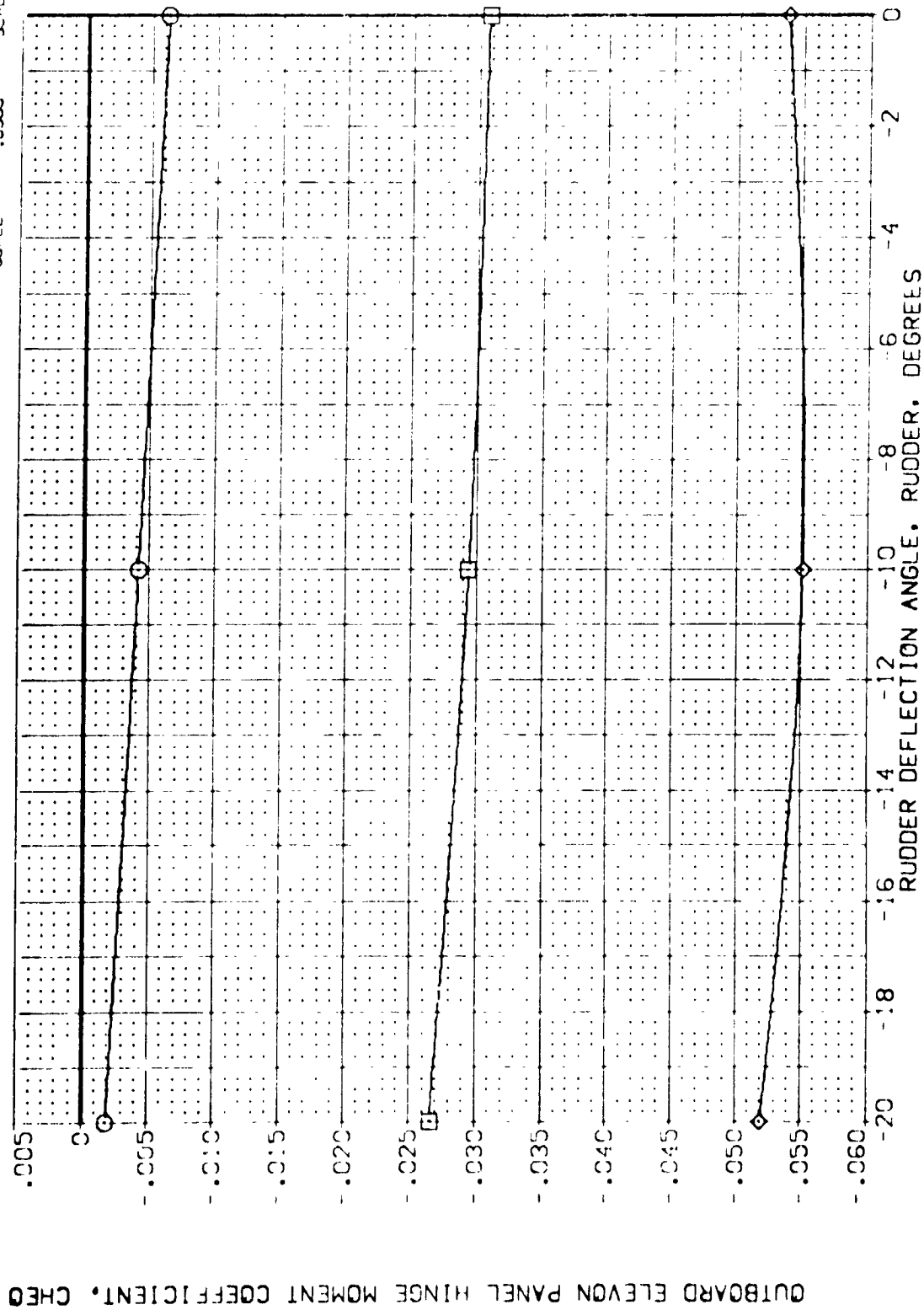


FIG. 49 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGE MOMENT, SPEEDBRAKE = 55 DEG

AP 87 747 0A53C 3 C M F W1 V NOM. RN/L (CEELO32)

SYMBOL  
 O  
 X  
 <

PARAMETRIC VALUES  
 ALPHA .000  
 MACH 3.000  
 BETA .000  
 ELEVON .000  
 AILRON .000  
 SPOBRK 46.000  
 ELEV-R .000  
 ELEV-L .000

OUTBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, CHEO

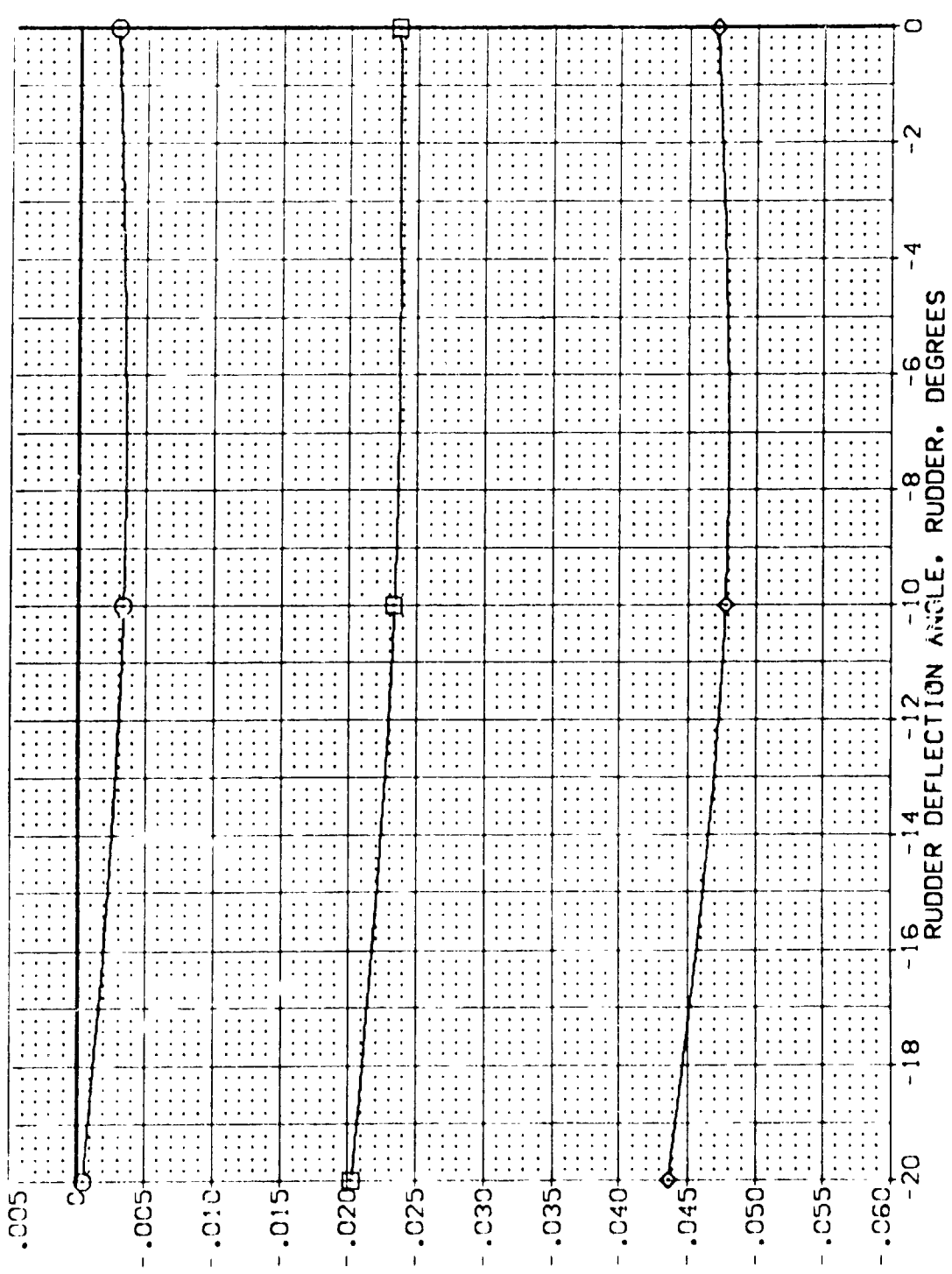


FIG. 49 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGEMOMENT, SPEEDBRAKE = 55 DEG  
 PAGE 775

SYMBOL  
◇ ○ □

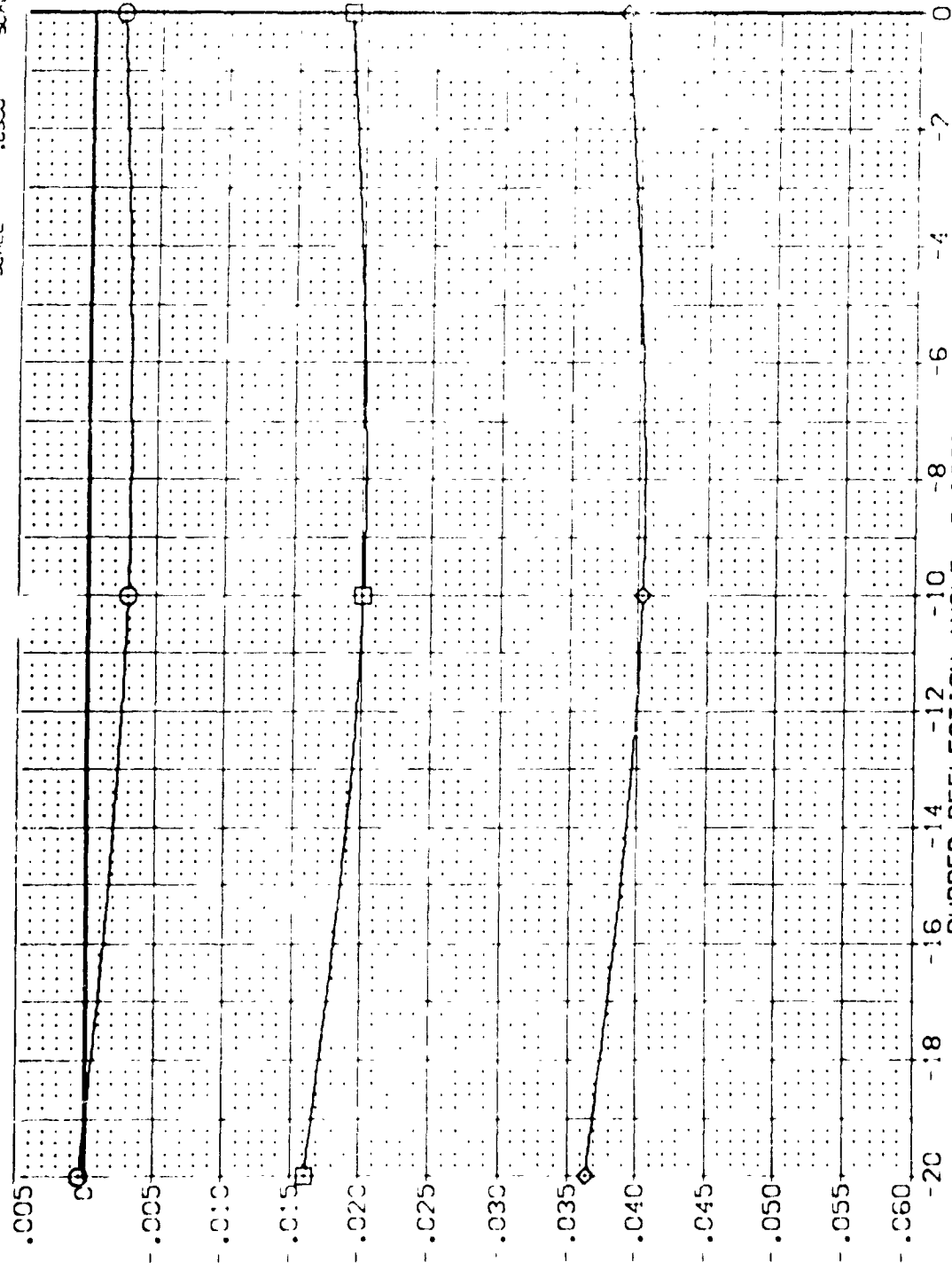
ALPHA  
.000  
10.000  
20.000

MACH  
3.500

PARAMETRIC VALUES  
BETA .000  
AILRON .000  
SPOBRN 46.000  
BOFLAP -11.700  
ELEV-L .000  
ELEV-R .000

REFERENCE INFORMATION  
SREF 2.4210 SQ.FT.  
LREF 14.2440 IN.  
BREF 28.0004 IN.  
XPRP 32.0010 IN.  
YPRP .0000 IN.  
ZPRP 11.2500 IN.  
SCALE .0300

OUTBOARD ELEVON PANEL HINGE MOMENT COEFFICIENT, C<sub>HED</sub>



RUDDER DEFLECTION ANGLE, RUDDER, DEGREES

FIG. 49 EFFECT OF RUDDER DEFLECTION ON ELEVON HINGE MOMENT, SPEEDBRAKE = 55 DEG

(EEL032)

ARC 87-777 0A530 3 C M F W1 V NOM. RN/L

SYMBOL	PARAMETRIC VALUES				REFERENCE INFORMATION			
	ALPHA	MACH	BETA		SREF	SO FT.		
○	.000	2.500	.000		LREF	14.2440	IN	
□	10.000	.000	AILRON		EREF	28.1004	IN	
◇	20.000	-11.700	SPOBRK	46.000	XMRP	32.3010	IN	
		.000	ELEV-R	.000	YMRP	.0000	IN	
			ELEV-L	.000	ZMRP	11.2500	IN	
					SCALE	.0300	SCALE	

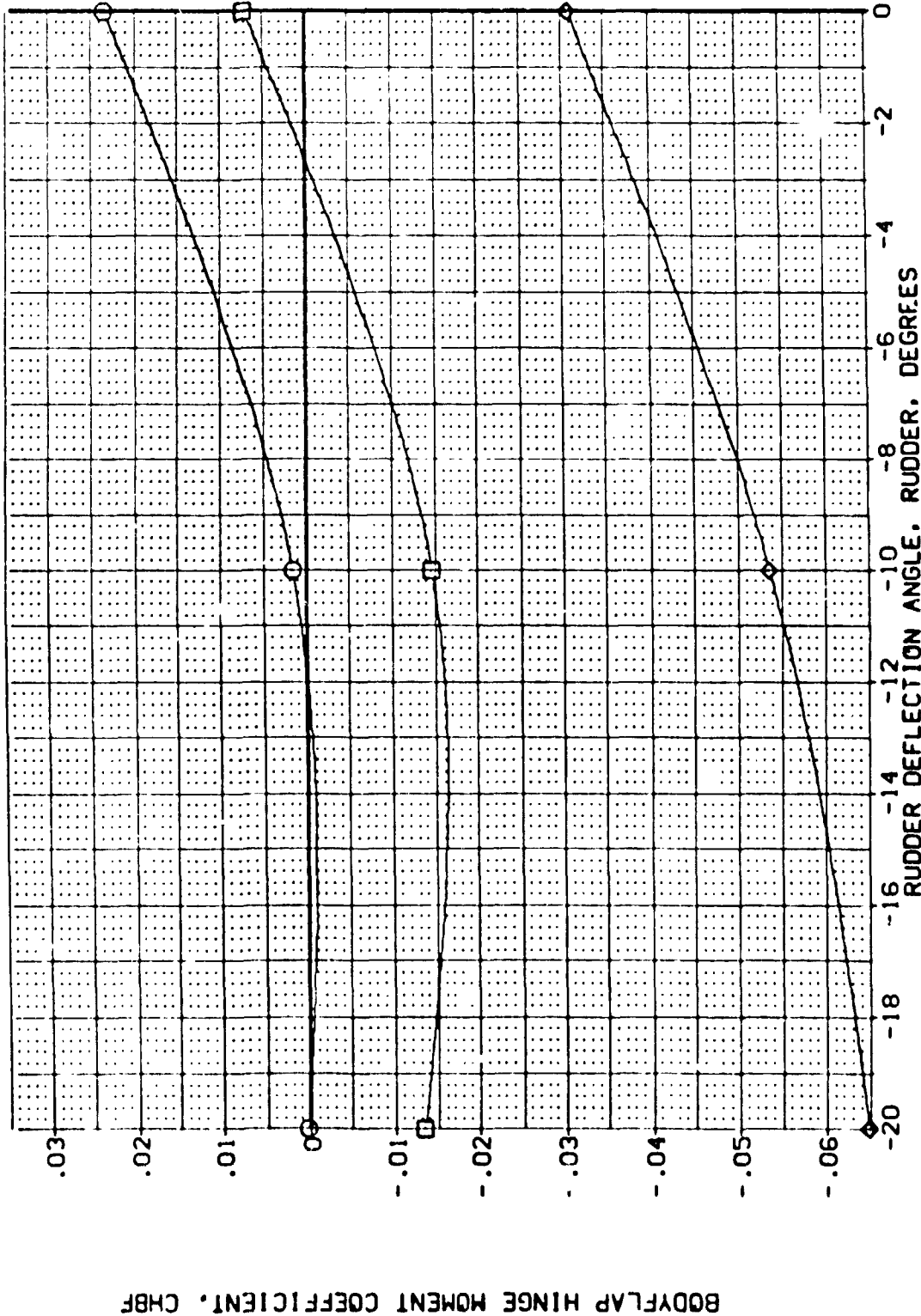


FIG. 50 EFFECT OF RUDDER DEFLECTION ON BODYFLAP HINGEMENT. SPEEDBRAKE= 55 DEG

SYMBOL  
○ □ ◇

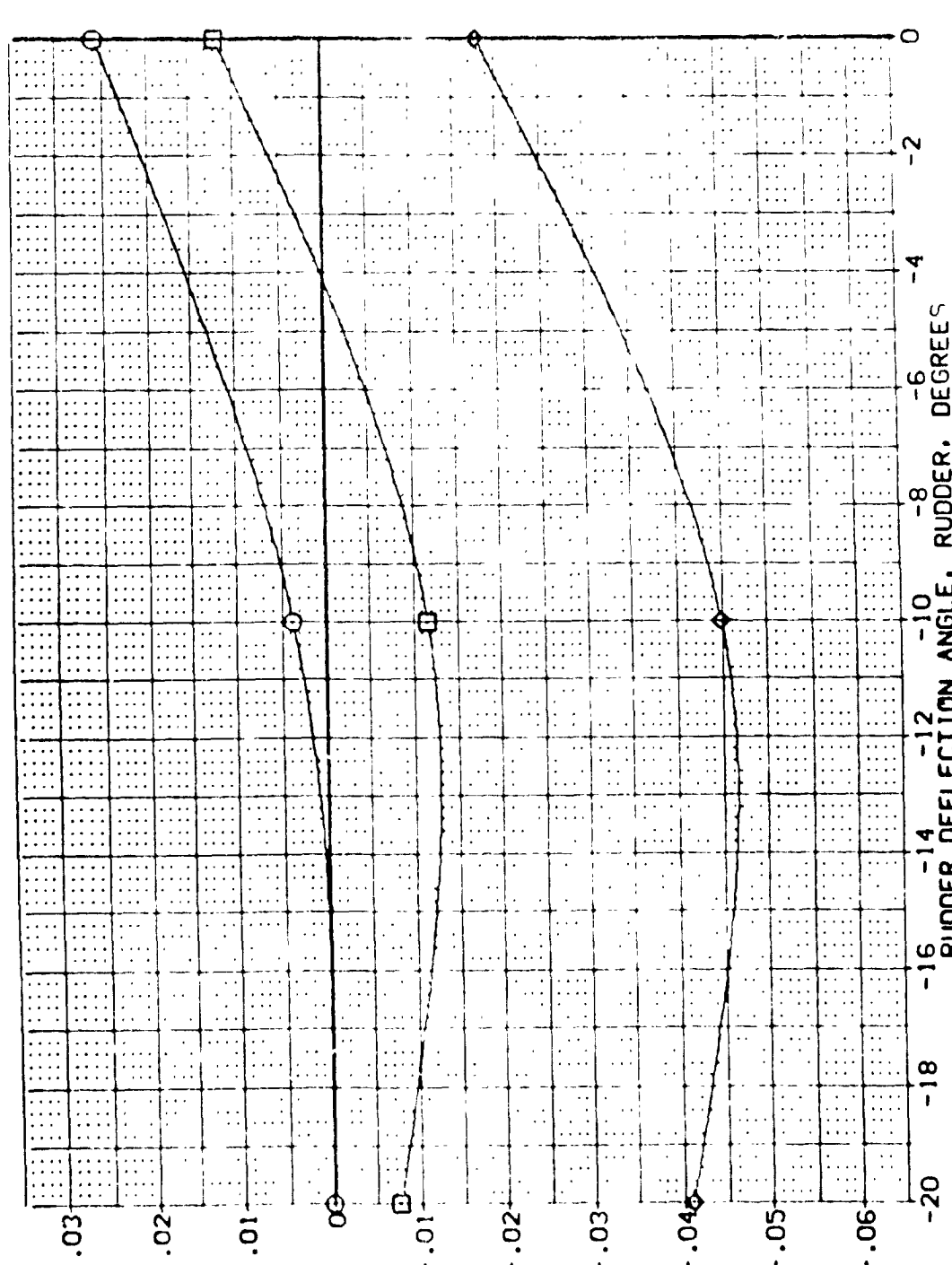
ALPHA  
.000  
10.000  
20.000

MACH  
3.000  
ELEVON  
BOFLAP  
ELEV-L

PARAMETRIC VALUES  
BETA  
ALURON  
SPOBRK  
ELEV-R

.000  
.000  
46.000  
.000  
.000

REFERENCE INFORMATION  
SREF 2.421C  
LREF 14.2440  
XREF 28.1004  
YREF 32.3010  
ZREF 11.2500  
SCALE 0.300



BODYFLAP HINGE MOMENT COEFFICIENT, CHBF

FIG. 50 EFFECT OF RUDDER DEFLECTION ON BODYFLAP HINGEMENT, SPEEDBRAKE= 55 DEG



(EEL032)

ARC 87-747 0A530 B C M F W I . NOM. RN/L

SYMBOL  
○ □ ◇

PARAMETRIC VALUES	
ALPHA	MACH
.000	3.500
10.000	BETA
20.000	.000
	AILURON
	46.000
	SPOBRK
	ELEV-R
	.000

REFERENCE INFORMATION	
ZREF	2.4210
LREF	4.2440
BREF	28.1004
XREF	32.3010
YREF	0.000
ZREF	11.2500
SCALE	0.300

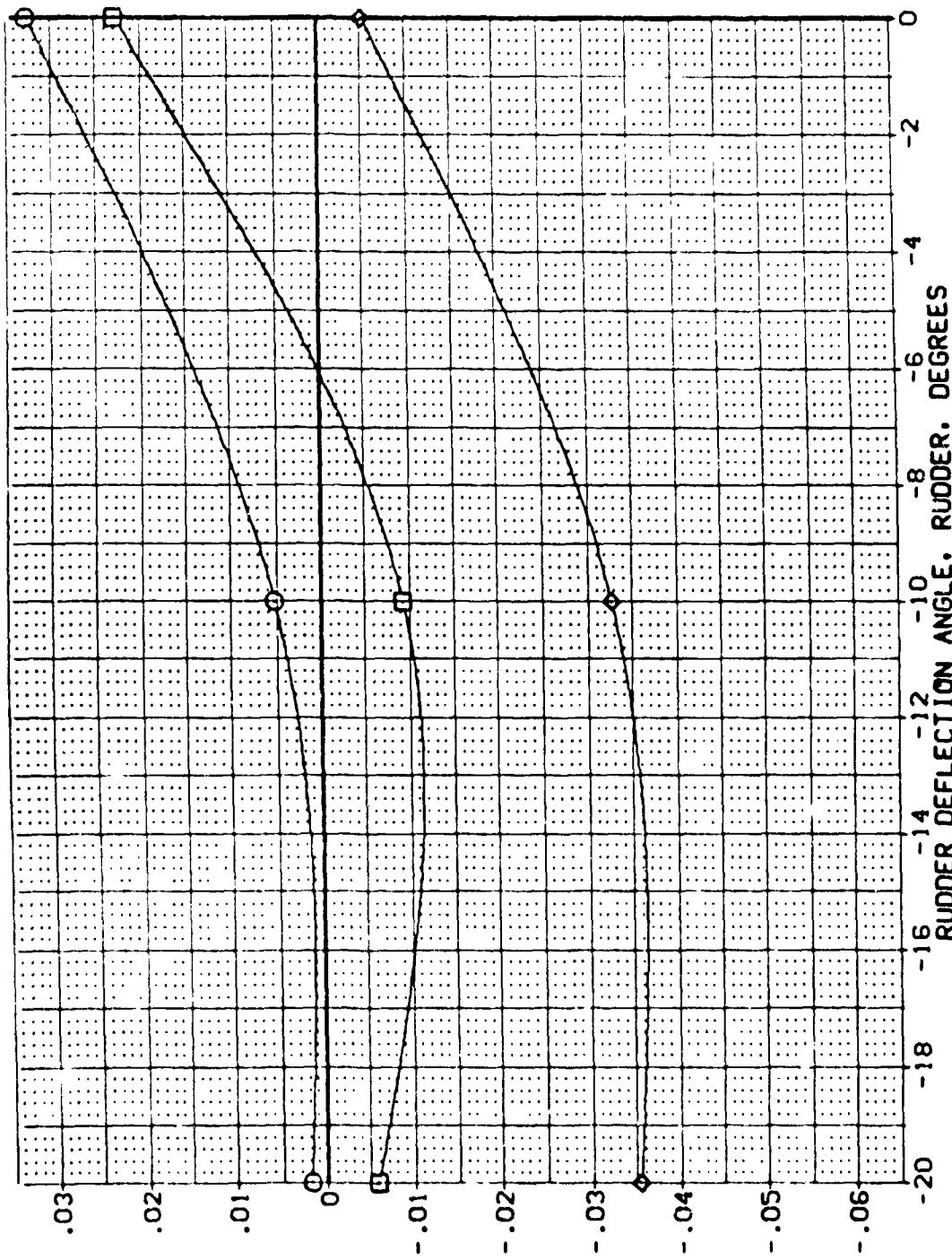


FIG. 50 EFFECT OF RUDDER DEFLECTION ON BODYFLAP HINGEMOMENT, SPEEDBRAKE= 55 DEG

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (VELO:12) ARC 87-747 BAS3C 8 C M F V1 V NOM: RN/L  
 (VELO:13) ARC 87-747 BAS3C 8 C M F V1 V NOM: RN/L  
 (VELO:14) ARC 87-747 BAS3C 8 C M F V1 V NOM: RN/L

ALPHA RUDDER BOFLAP SPEEDBRK  
 .000 .000 .000 .000  
 10.000 .000 .000 .000  
 20.000 .000 .000 .000

REFERENCE INFORMATION  
 SREF 2.4210 50. FT.  
 BREF 14.2440 1 N.  
 XREF 28.1004 1 N.  
 YREF 32.3010 1 N.  
 ZREF .0000 1 N.  
 SCALE 11.2500 1 N.  
 SCALE 1.0000 1 N.

UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

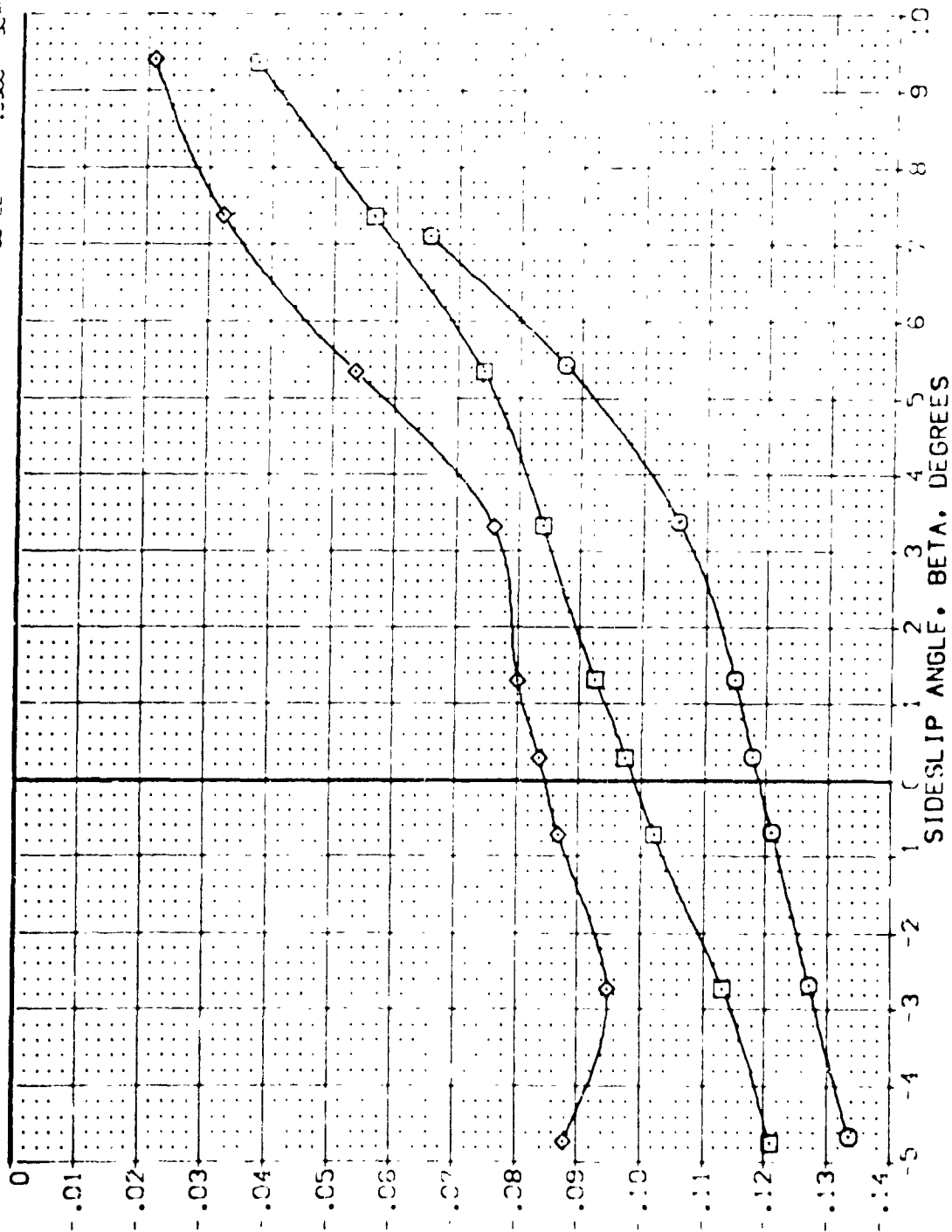


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
 (MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOLAP	SPOBRK	REFERENCE INFORMATION
(YEL012)	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(YEL013)	ARC 87-747 OAS3C B C M F V	10.000	.000	-11.700	55.000	LREF 14.2440
(YEL014)	ARC 87-747 OAS3C B C M F V	20.000	.000	-11.700	55.000	BREF 28.1004
						XMRP 32.3010
						YMRP .0000
						ZMRP 11.2500
						SCALE .0300

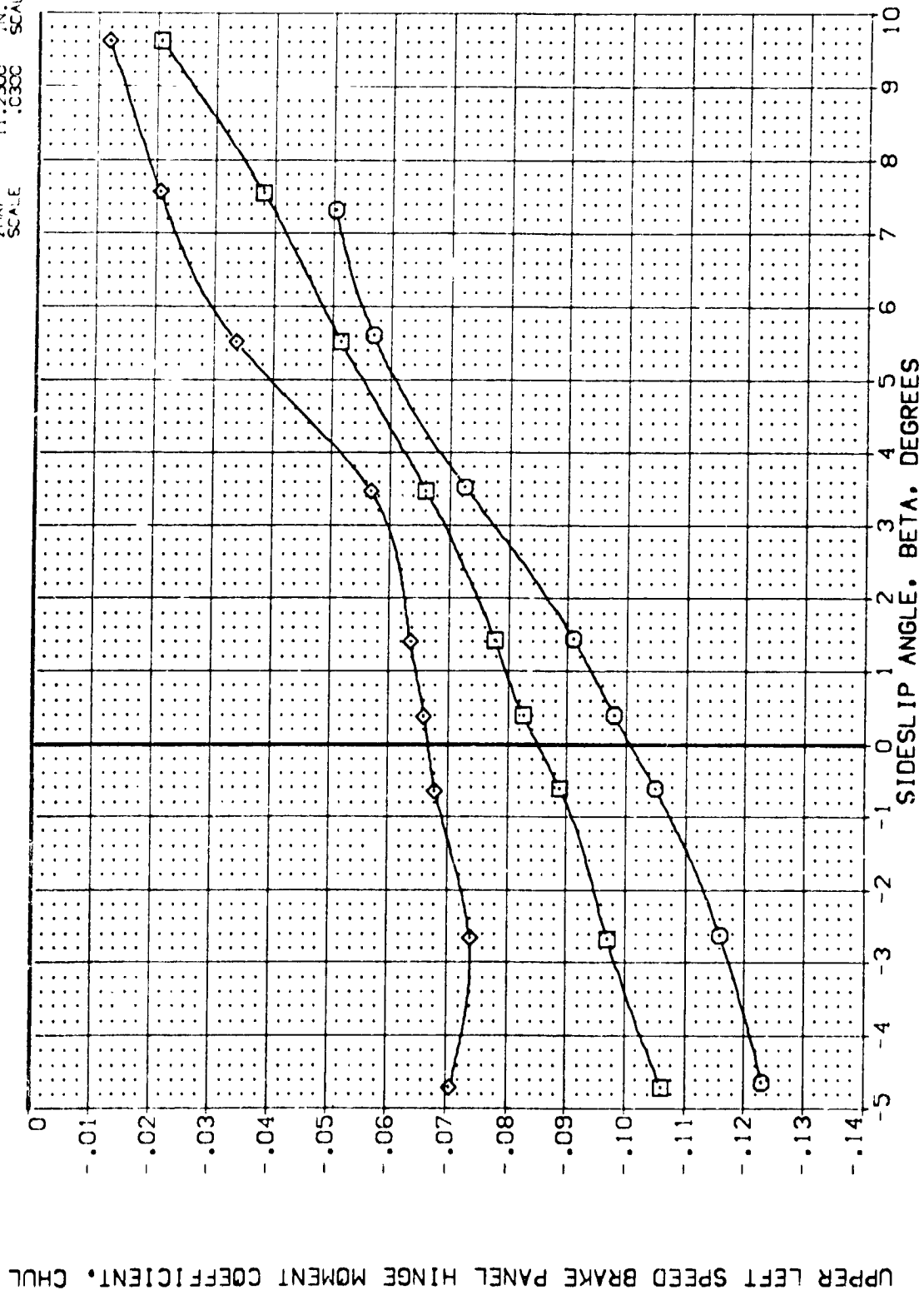


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(B)MACH = 3.00

DATA SET SYMBOL: (VELO12), (VELO13), (VELO14)

CONFIGURATION DESCRIPTION: ARC 87-747 CAS3C B C M F VI V, ARC 87-747 CAS3C B C M F VI V, ARC 87-747 CAS3C B C M F VI V

ALPHA: .000, 10.000, 20.000

RUDDER: .000, .000, .000

BOX LAP: .000, .000, .000

SPOBRK: 55.000, 55.000, 55.000

REFERENCE INFORMATION: SREF 2.4210, LREF 14.2440, BRFL 28.004, XMRP 32.3010, YMRP .0000, ZMRP 11.2500, SCALE .0300

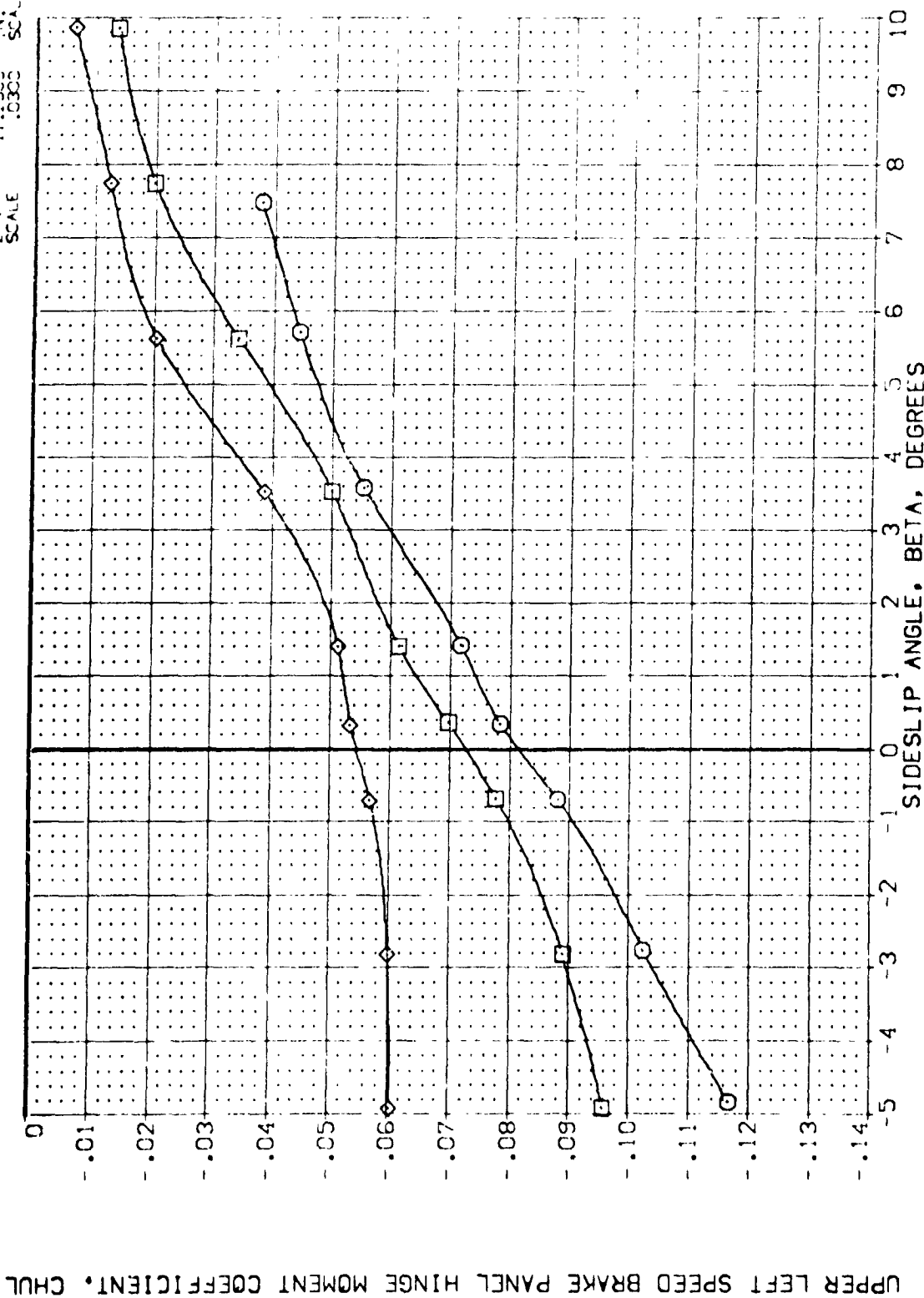


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(C)MACH = 3.50

DATA SET SYMBOL: (C12)  
 (C13)  
 (C14)

CONFIGURATION DESCRIPTION:  
 ARC 87-747 CAS3C B C M F VI V NOM. RN/L  
 ARC 87-747 CAS3C B C M F VI V NOM. RN/L  
 ARC 87-747 CAS3C B C M F VI V NOM. RN/L

ALPHA: .000  
 10.000  
 20.000

RUDDER: .000  
 .000  
 .000

BOG LAP: .000  
 -11.700  
 -11.700

SPEEDBRAKE: 55.000  
 55.000  
 55.000

REFERENCE INFORMATION:  
 SREF: 2.4210 SQ. FT.  
 LREF: 14.2440 IN.  
 BREF: 28.1004 IN.  
 XREF: 32.3010 IN.  
 YREF: .0000 IN.  
 ZREF: 11.2500 IN.  
 SCALE: .0300

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

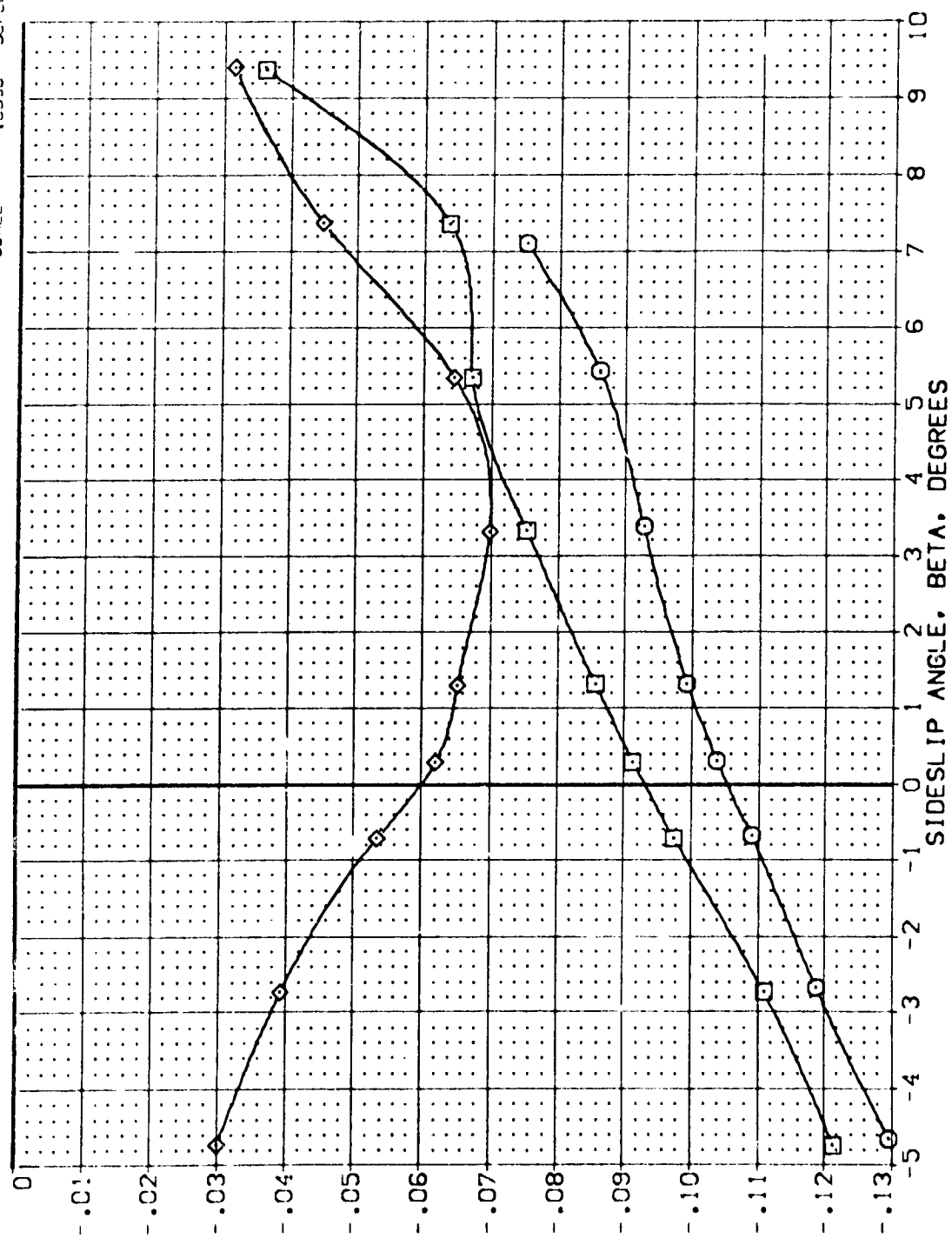


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
 (MACH = 2.50) PAGE 783

DATA SET SYMBOL CONFIGURATION DESCRIPTION

Symbol	Configuration	Description	Alpha	Rudder	BDF Lap	SPDRK	Reference Information
(YEL012)	ARC 87-747	QAS3C B C M F V1	0.000	0.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(YEL013)	ARC 87-747	QAS3C B C M F V1	10.000	0.000	-11.700	55.000	LREF 14.2440 IN.
(YEL014)	ARC 87-747	QAS3C B C M F V1	20.000	0.000	-11.700	55.000	BREF 28.1004 IN.
							XREF 32.3010 IN.
							YREF 0.0000 IN.
							ZREF 11.2500 IN.
							SCALE 0.0300

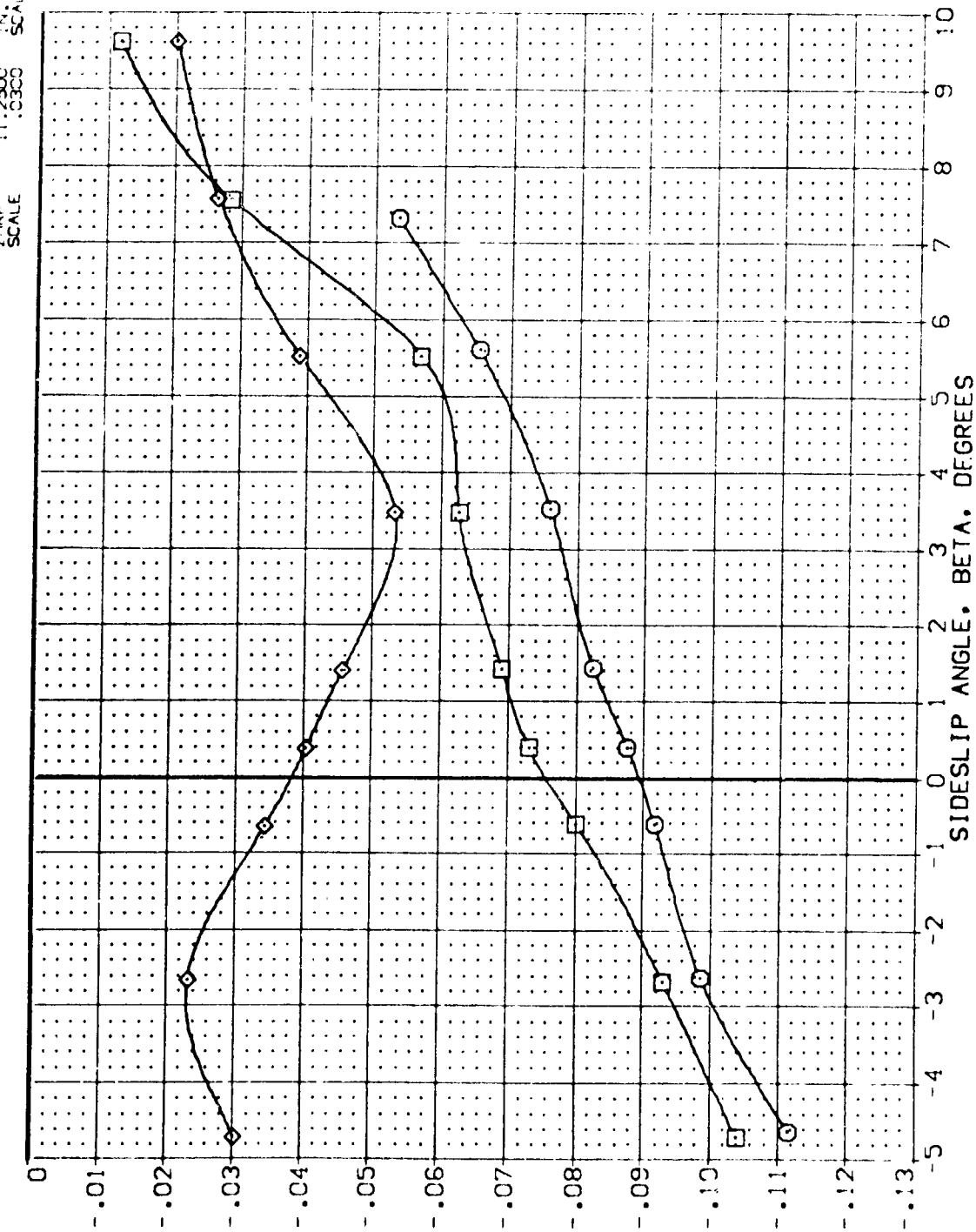


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(B)MACH 3.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BDF LAP    SPOBRK    REFERENCE INFORMATION

(VELO12)	ARC 87-747 QAS3C B C M F V	0.000	.000	-11.700	55.000	SREF	2.4210	50.0"
(VELO13)	ARC 87-747 QAS3C B C M F V	10.000	.000	-11.700	55.000	LREF	14.2440	10.0"
(VELO14)	ARC 87-747 QAS3C B C M F V	20.000	.000	-11.700	55.000	BREF	28.1004	10.0"
						XMREF	32.3010	10.0"
						YMREF	0.0000	10.0"
						ZMREF	11.7500	10.0"
						SCALE	.0300	SCALE

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

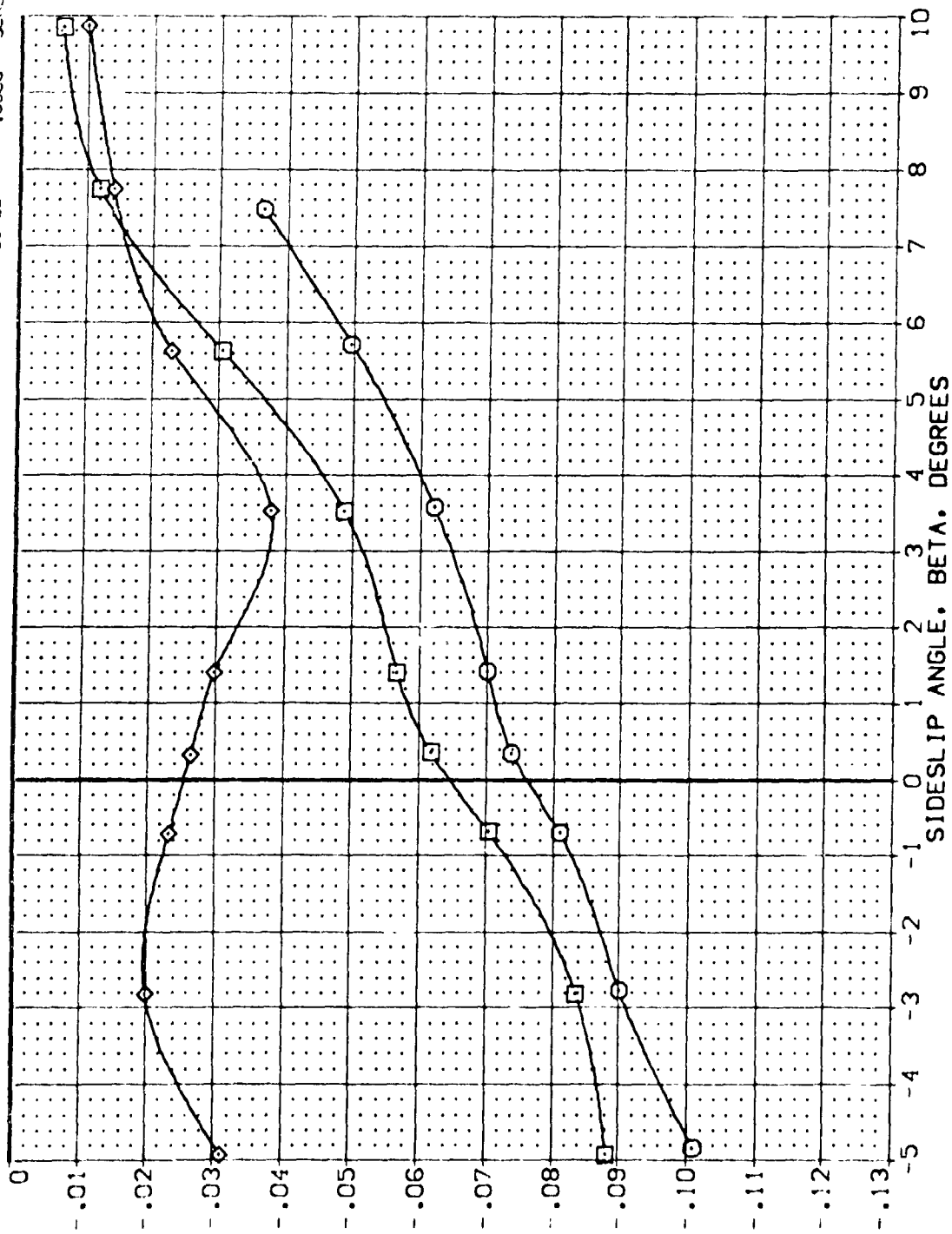


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
 (C)MACH = 3.50    PAGE 785

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(VELO:2)	ARC 87-747 OAS3C B C M F V	.000	.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(VELO:3)	ARC 87-747 OAS3C B C M F V	10.000	.000	-11.700	55.000	LREF 14.2440 IN.
(VELO:4)	ARC 87-747 OAS3C B C M F V	20.000	.000	-11.700	55.000	BREF 28.1004 IN.
						XMRP 32.3010 IN.
						YMRP .0000 IN.
						ZMRP 11.2500 IN.
						SCALE .0300

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

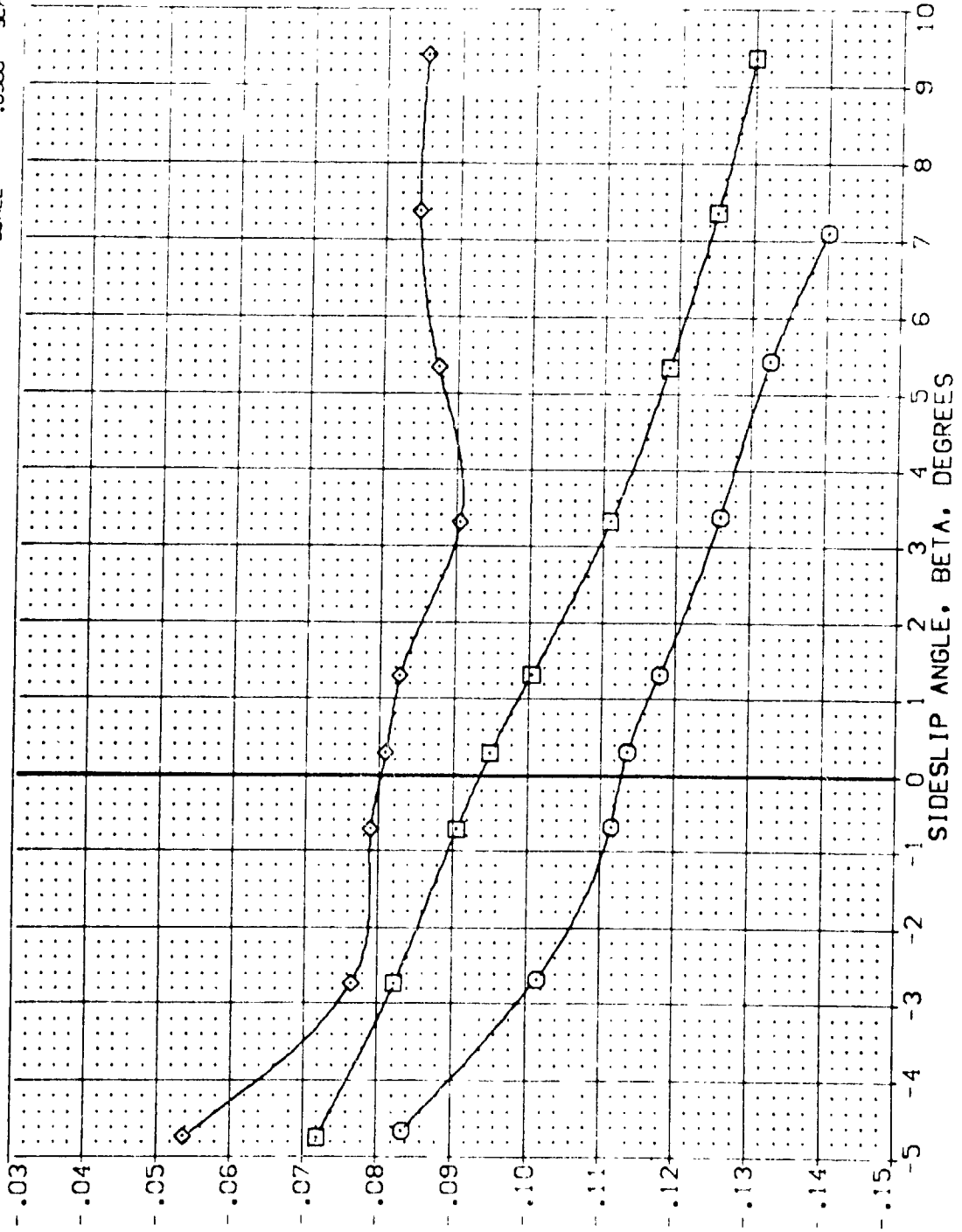


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES

(A)MACH = 2.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REF	SPDBRK	ALPHA	RUDDER	BOELAP	SPDBRK	REFERENCE INFORMATION
012	ARC 87-747 OAS3C B C M F V	2.4210	55.000	.000	.000	-11.700	55.000	SO.F.
013	ARC 87-747 OAS3C B C M F V	14.2440	55.000	.000	.000	-11.700	55.000	SO.F.
014	ARC 87-747 OAS3C B C M F V	28.1004	55.000	.000	.000	-11.700	55.000	SO.F.
		37.3010						SO.F.
		11.2500						SCALE

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

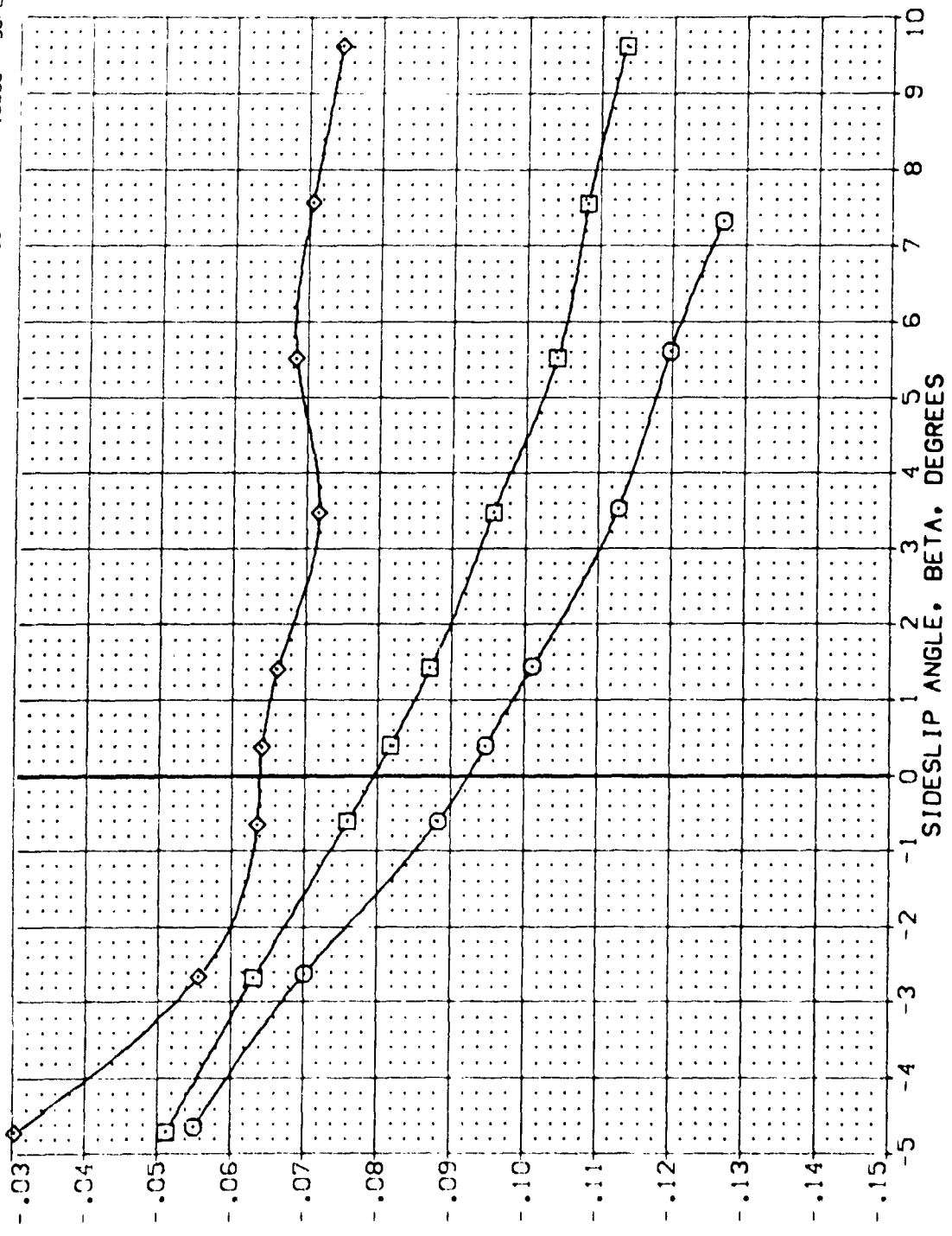


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

Symbol	Configuration	Description	Alpha	Rudder	Boatlap	Speedbrake	Reference Information
[YEL012]	ARC 87-747	QAS3C B C M F V1	0.000	0.000	-11.700	55.000	SREF 2.4210 SQ.FT.
[YEL013]	ARC 87-747	QAS3C B C M F V1	10.000	0.000	-11.700	55.000	LREF 14.2440 IN.
[YEL014]	ARC 87-747	QAS3C B C M F V1	20.000	0.000	-11.700	55.000	BREF 28.1004 IN.
							XMRP 32.3010 IN.
							YMRP 11.0000 IN.
							ZMRP 11.2500 IN.
							SCALE .0300

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

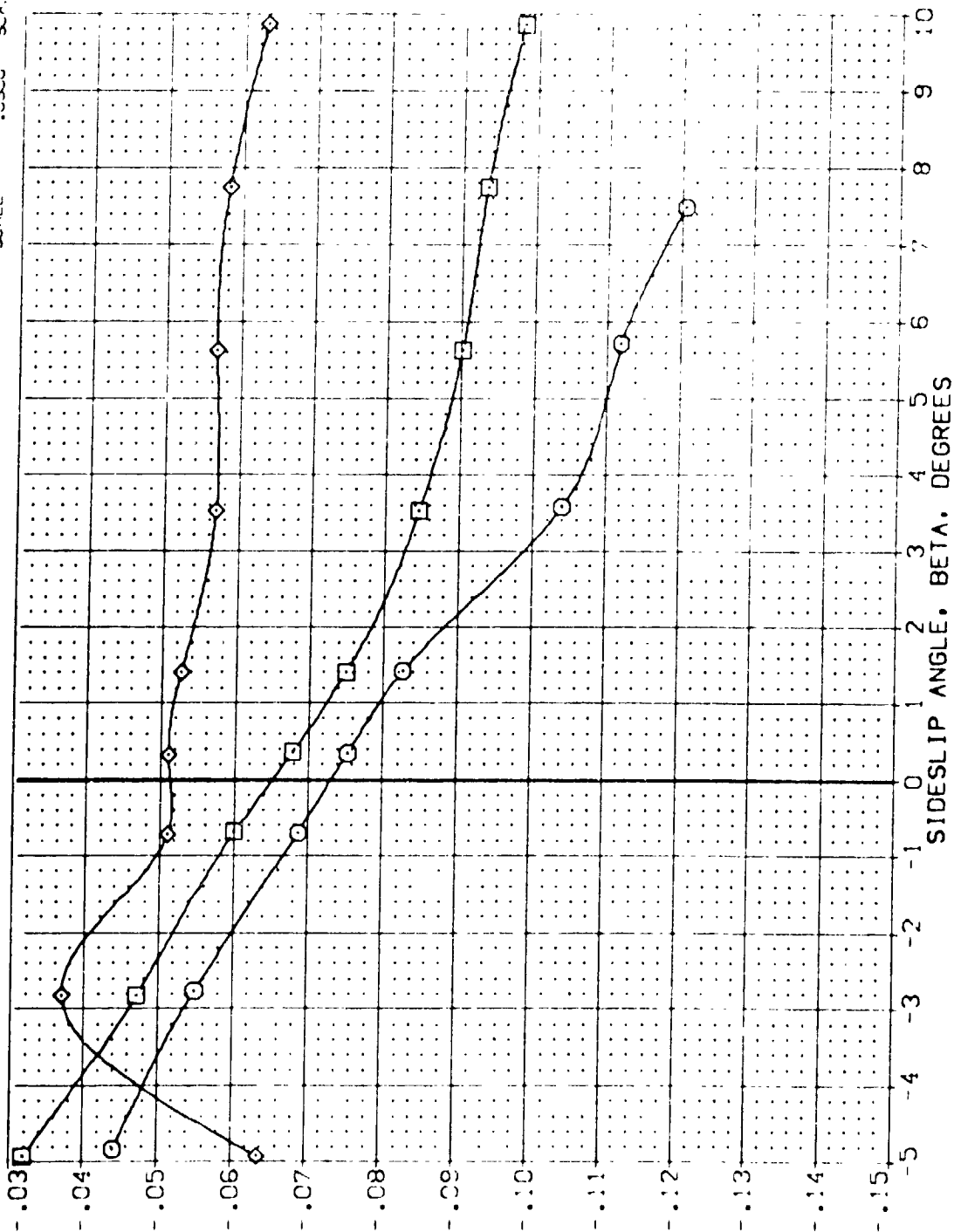


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 05 DEGREES

(C)MACH = 3.50



DATA SET SYMBOL    CONFIGURATION    DESCRIPTION    ALPHA    RUDDER    BDF LAP    SPOBRK    REFERENCE INFORMATION

(VEL012)	ARC 87-747	BASIC B C M F VI V	10.000	.000	-11.700	55.000	SREF	2.4210	50. FT.
(VEL013)	ARC 87-747	BASIC B C M F VI V	10.000	.000	-11.700	55.000	LRFF	14.2440	
(VEL014)	ARC 87-747	BASIC B C M F VI V	20.000	.000	-11.700	55.000	BRFF	28.1004	
							YMRP	32.3010	
							ZMRP	.0000	
							SCALE	11.2500	
								.0300	

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

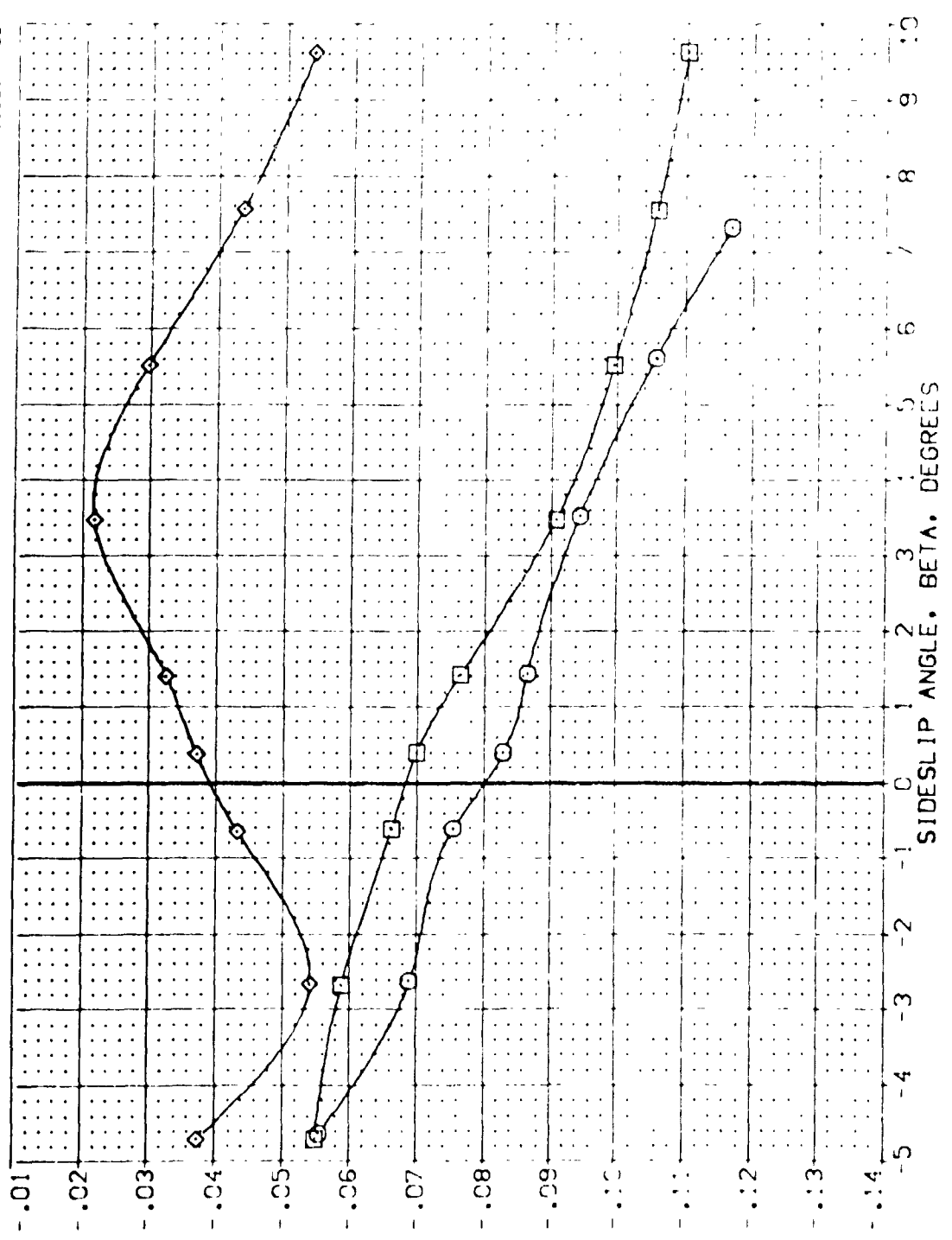


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(B)MAC = 3.00    PAS = 790

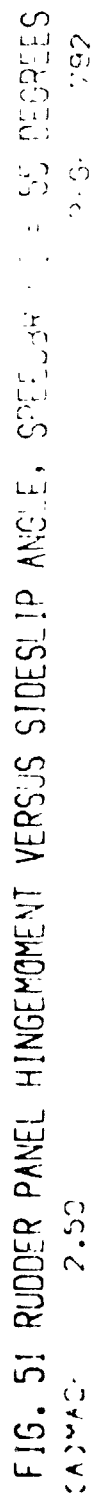
LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES

(C)MAC = 3.50

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UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL



2.53 (A) 3.45

DATA SET SYMBOL: CONFIGURATION DESCRIPTION: REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
ARC 87-747	CASDC B C M F V	SPEED 2.4710 50.000
ARC 87-747	CASDC B C M F V	REF 14.2240 50.000
ARC 87-747	CASDC B C M F V	REF 28.1004 50.000
ARC 87-747	CASDC B C M F V	REF 32.3010 50.000
ARC 87-747	CASDC B C M F V	REF 11.2500 50.000
ARC 87-747	CASDC B C M F V	REF 10.000 50.000

ALPHA: 0.000, 10.000, 20.000  
 RUDDER: -10.000, -10.000, -10.000  
 BOX LAP: -11.700, -11.700, -11.700  
 SPEED: 50.000, 50.000, 50.000

UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

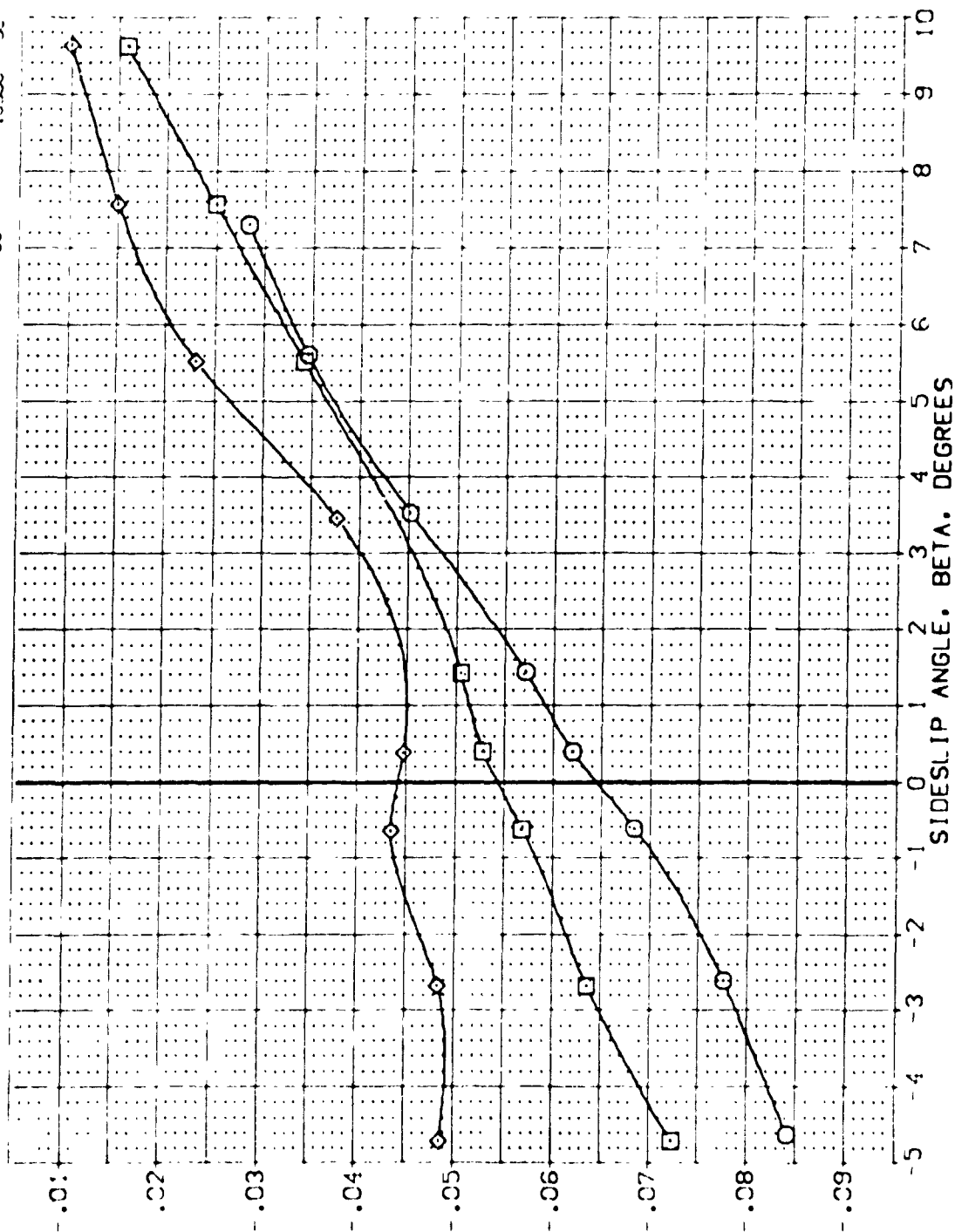
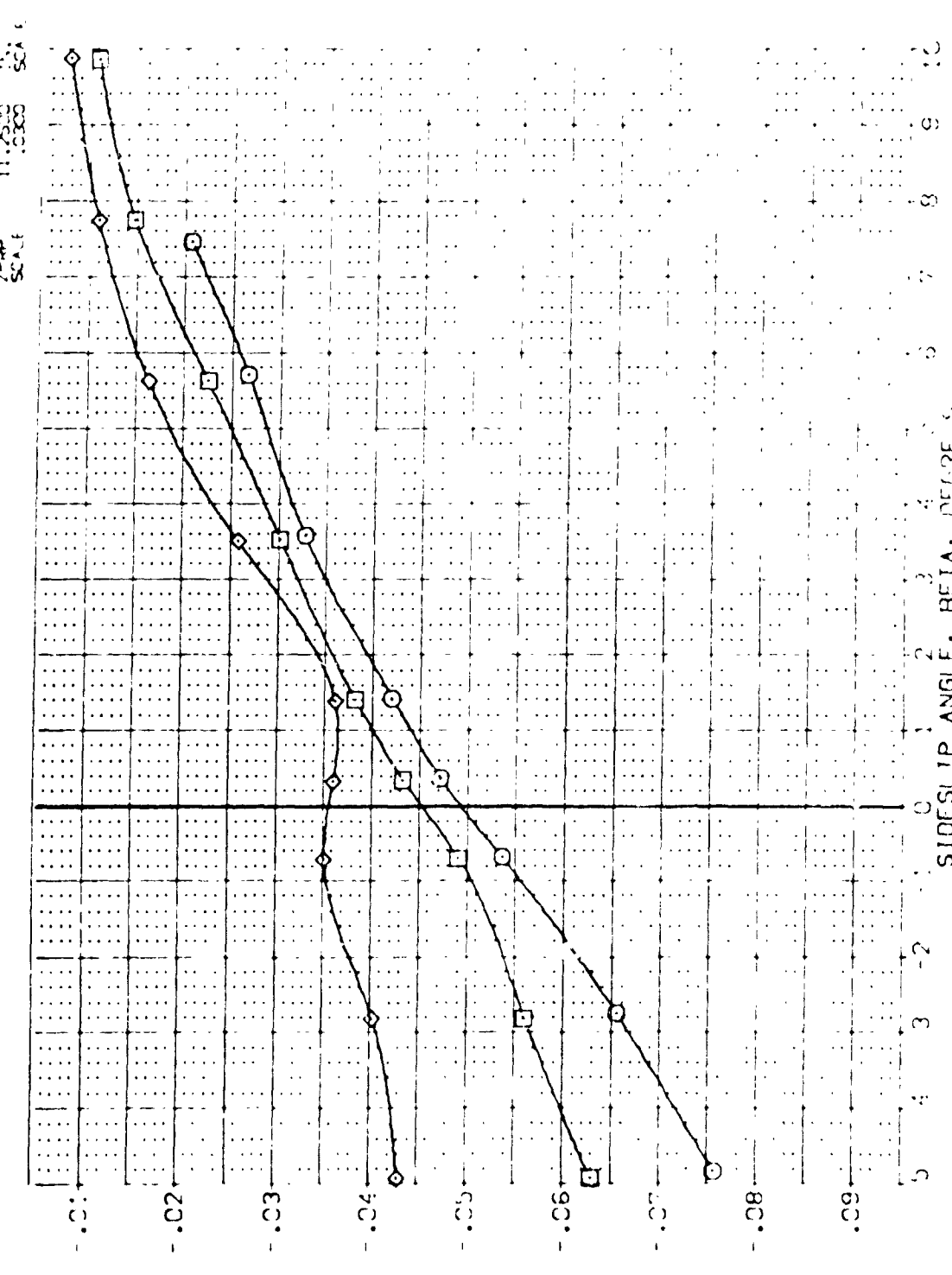


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES

(B)MAC = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	ED/LAP	SPOBRK	REFERENCE INFORMATION
ARC 87-747	BASEC B C M F V	0.000	-10.000	-11.700	55.000	SREF 2.4210
ARC 87-747	BASEC B C M F V	10.000	-10.000	-11.700	55.000	LRFF 14.2440
ARC 87-747	BASEC B C M F V	20.000	-10.000	-11.700	55.000	BRFF 28.1004
						YREF 32.3010
						YREF 11.2330
						SCALE 0.000



UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

FIG. 51 RUDDER PANEL HINGEMENT VERSUS SIDESLIP ANGLE, SPEED/RAKE = 50 DEGREES  
 (COMACH) 3.00





DATA SET SYMBOL CONFIGURATION DESCRIPTION

SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA	RUDDER	BOULAP	SPEEDBRAKES	REFERENCE INFORMATION
○	ARC 87-747 D453C B C M F V I	NOM. RV/L	0.000	-10.000	-11.700	55.000	SREF 2.4210 SQ. FT.
○	ARC 87-747 D453C B C M F V I	NOM. RV/L	10.000	-10.000	-11.700	55.000	LREF 14.2410
○	ARC 87-747 D453C B C M F V I	NOM. RV/L	20.000	-10.000	-11.700	55.000	BREF 28.1004
○	ARC 87-747 D453C B C M F V I	NOM. RV/L					XMREF 32.3010
○	ARC 87-747 D453C B C M F V I	NOM. RV/L					YMREF 0.0000
○	ARC 87-747 D453C B C M F V I	NOM. RV/L					ZMREF 11.2500
○	ARC 87-747 D453C B C M F V I	NOM. RV/L					SCALE 0.0300

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

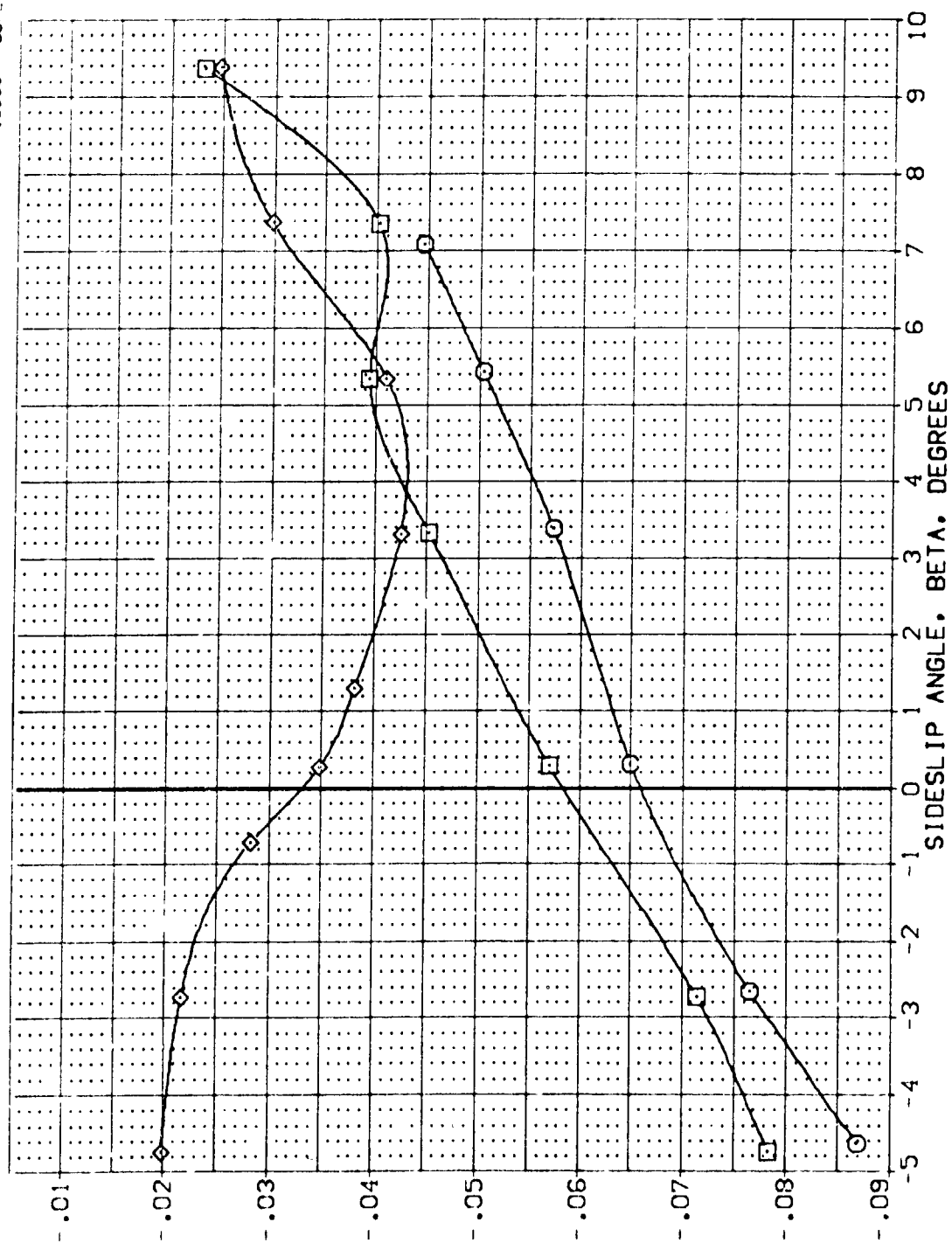


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BO-LAP	SPEED	REFERENCE INFORMATION
(VEL028)	ARC 87-747 CAS3C B C M F VI V	0.000	-10.000	-11.700	55.000	SREF 2.4210 50.10
(VEL030)	ARC 87-747 CAS3C B C M F VI V	10.000	-10.000	-11.700	55.000	LREF 14.2440
(VEL031)	ARC 87-747 CAS3C B C M F VI V	20.000	-10.000	-11.700	55.000	BREF 28.1000
						XMREF 32.3000
						YMREF 11.0000
						ZMREF 11.0000
						SCALE 10.500

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

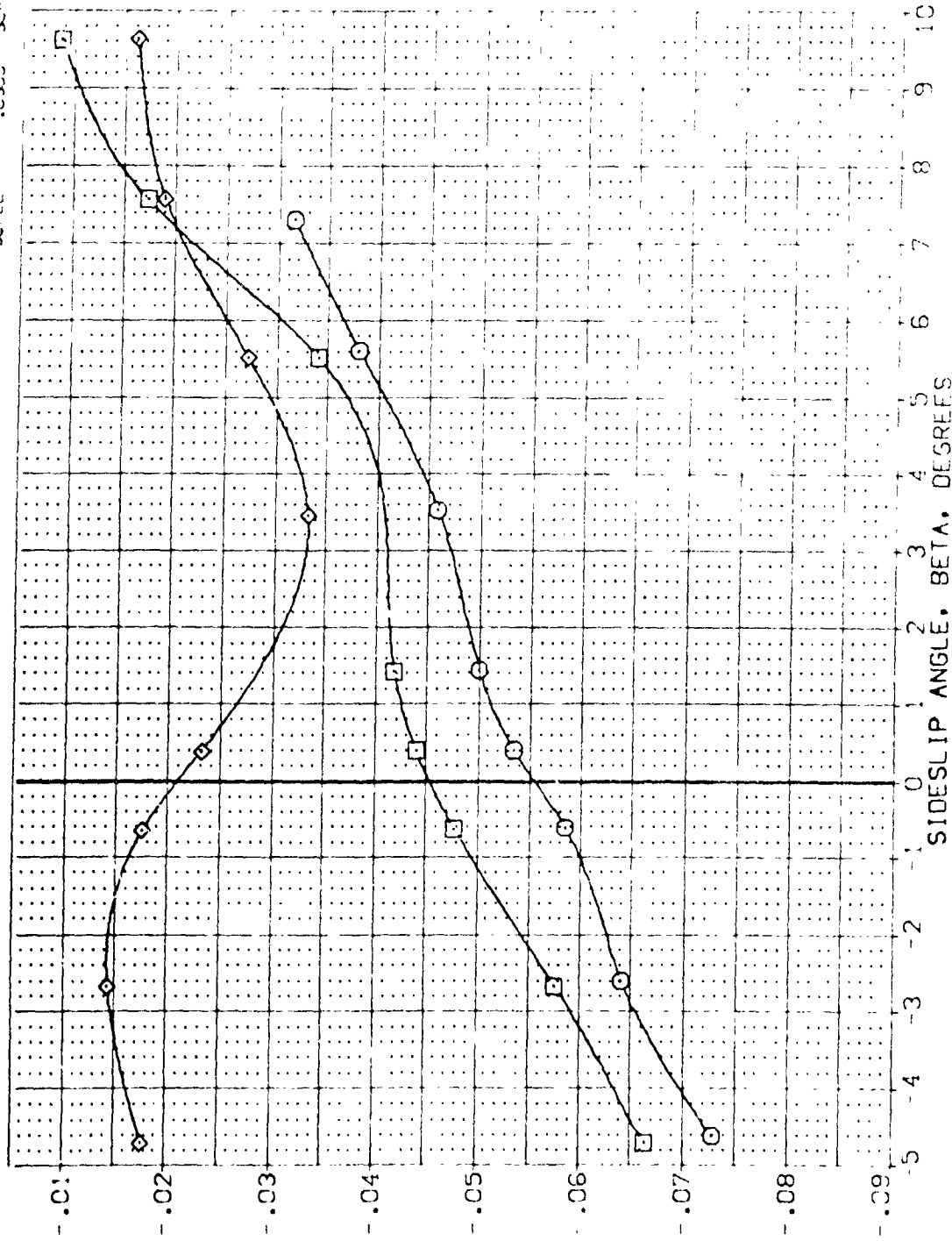


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE. SPEED BRAKE = 55 DEGREES  
(B)MACH = 3.00 PAGE 796

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA	RUDDER	80% LAP	SPOBRN	REFERENCE INFORMATION
Q	ARC 87-747 C 53C	B C H F VI	0.000	-10.000	-11.700	55.000	SREF 2.4210 50.17
Q	ARC 87-747 C 53C	B C H F VI	10.000	-10.000	-11.700	55.000	LREF 14.2410 50.17
Q	ARC 87-747 C 53C	B C H F VI	20.000	-10.000	-11.700	55.000	BREF 28.1004 50.17
							YMRP 32.3010 50.17
							YMRP 11.0000 50.17
							YMRP 11.2500 50.17
							SCALE .0300 SCALE

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

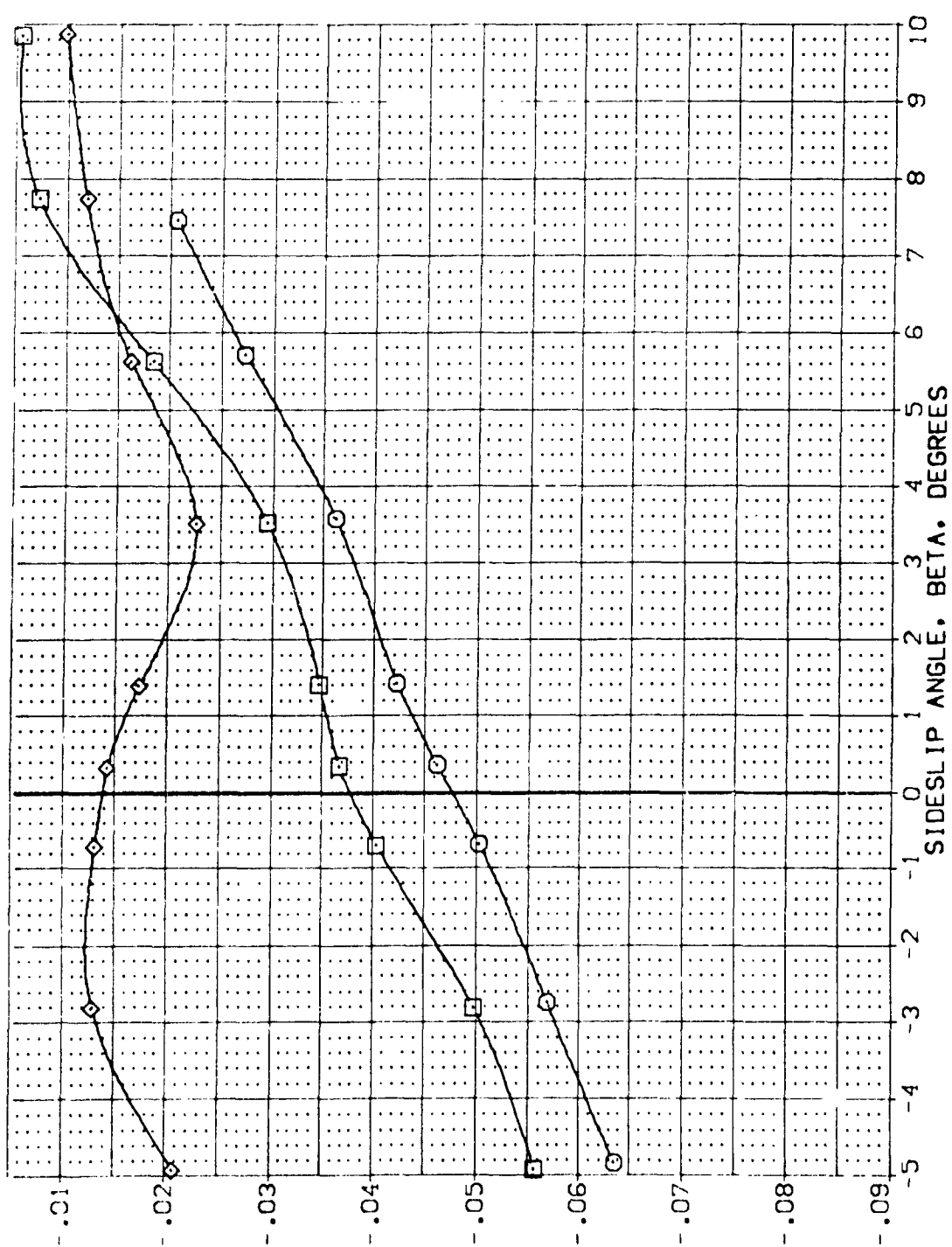


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(C)MAC = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BDLAP    SPEEDBRAKE    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDLAP	SPEEDBRAKE	REFERENCE INFORMATION
(VELO29)	ARC 87-747 QAS3C B C M F V	0.000	-10.000	-11.700	55.000	SREF 2.4210 SQ.FT.
(VELO30)	ARC 87-747 QAS3C B C M F V	10.000	-10.000	-11.700	55.000	LREF 14.2440 IN.
(VELO31)	ARC 87-747 QAS3C B C M F V	20.000	-10.000	-11.700	55.000	BREF 28.1004 IN.
						XMRP 32.3010 IN.
						YMRP .0000 IN.
						ZMRP 11.2500 IN.
						SCALE .0300

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

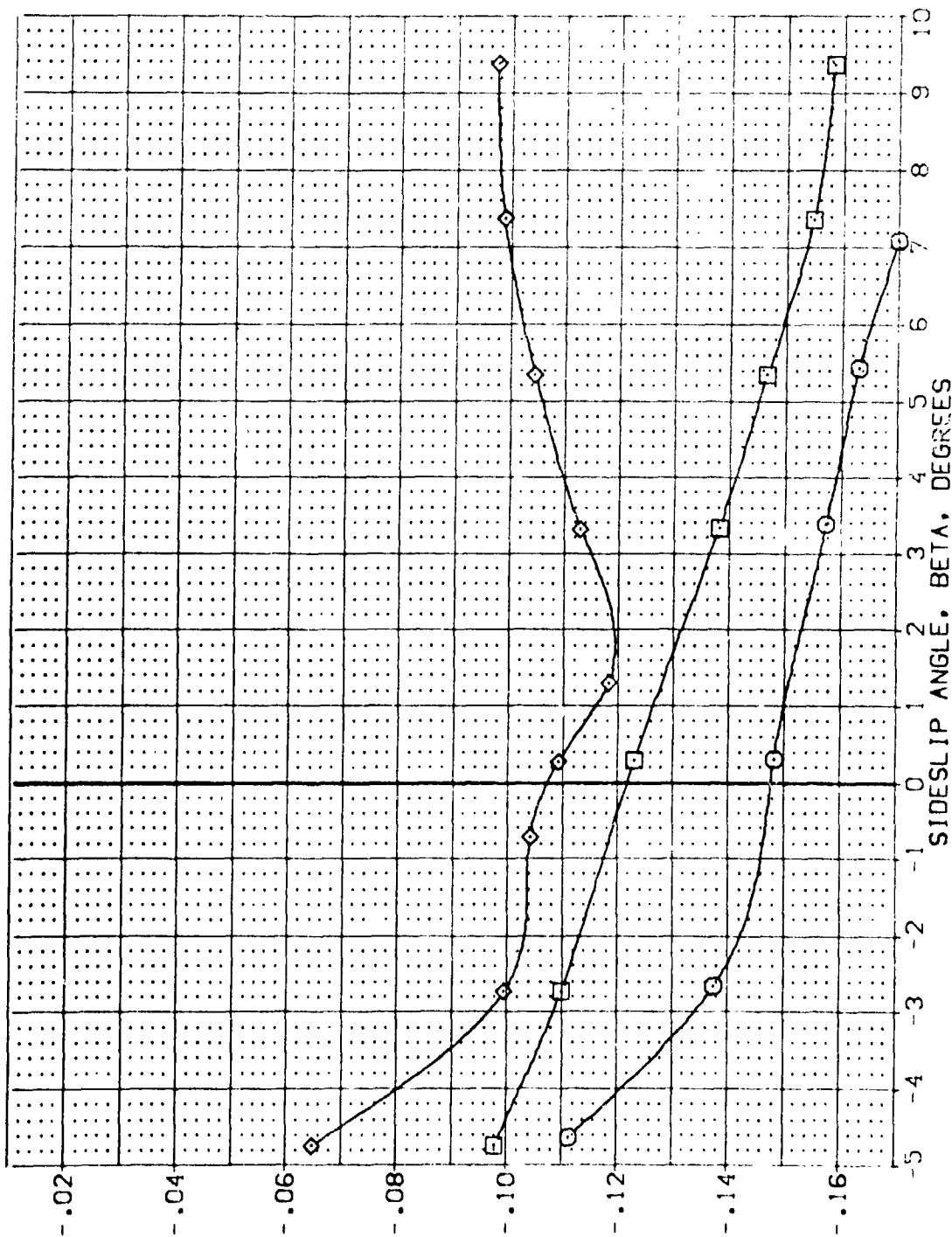


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	REFERENCE INFORMATION
ARC 87-747	Q	QAS3C	B C M F V	SREF 2.4210
ARC 87-747	Q	QAS3C	B C M F V	LREF 14.7440
ARC 87-747	Q	QAS3C	B C M F V	BREF 28.1004
				XMRP 37.3010
				YMRP .0000
				ZMRP .0000
				SCALE 11.2500
				SCALE .0300

ALPHA RUDDER BOFLAP SPEEDBRAKE

ALPHA	RUDDER	BOFLAP	SPEEDBRAKE
.000	-10.000	-11.700	55.000
10.000	-10.000	-11.700	55.000
20.000	-10.000	-11.700	55.000

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

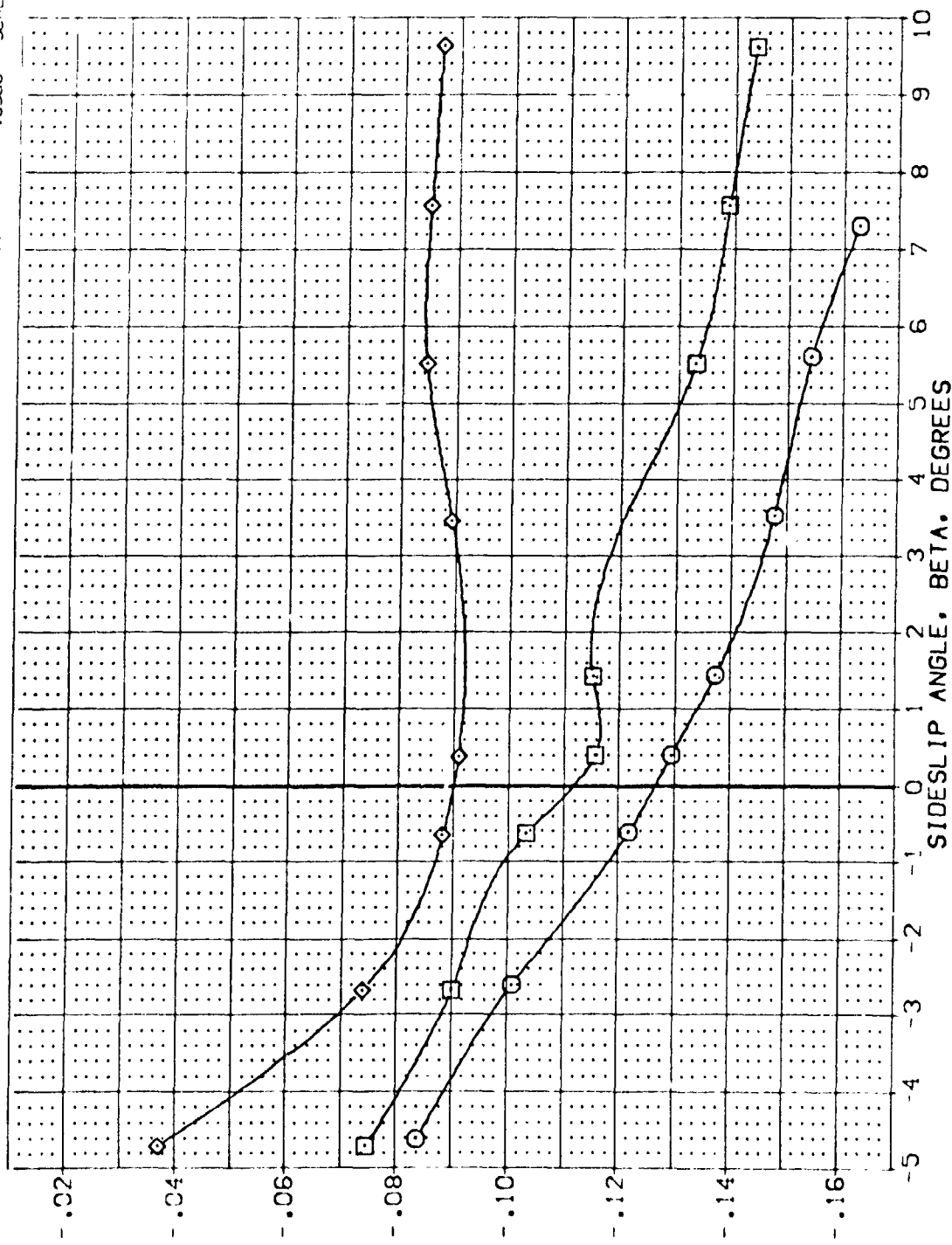


FIG. 51 RUDDER PANEL HINGEMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(3)MAC = 3.00

DATA SET SYMBOL: (YEL029) (YEL030) (YEL031)

CONFIGURATION DESCRIPTION: ARC 87-747 DASEC B C M F VI V, ARC 87-747 DASEC B C M F VI V, ARC 87-747 DASEC B C M F VI V

ALPHA: .000, 10.000, 20.000

RUDDER: -10.000, -10.000, -10.000

BOFLAP: -11.700, -11.700, -11.700

SPOBRK: 55.000, 55.000, 55.000

REFERENCE INFORMATION: SREF: 2.4210 SQ.F.T., LREF: 14.2440 IN., BREF: 28.1004 IN., XREF: 32.3010 IN., YREF: 11.5000 IN., ZREF: 11.5000 IN., SCALE: .0300

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

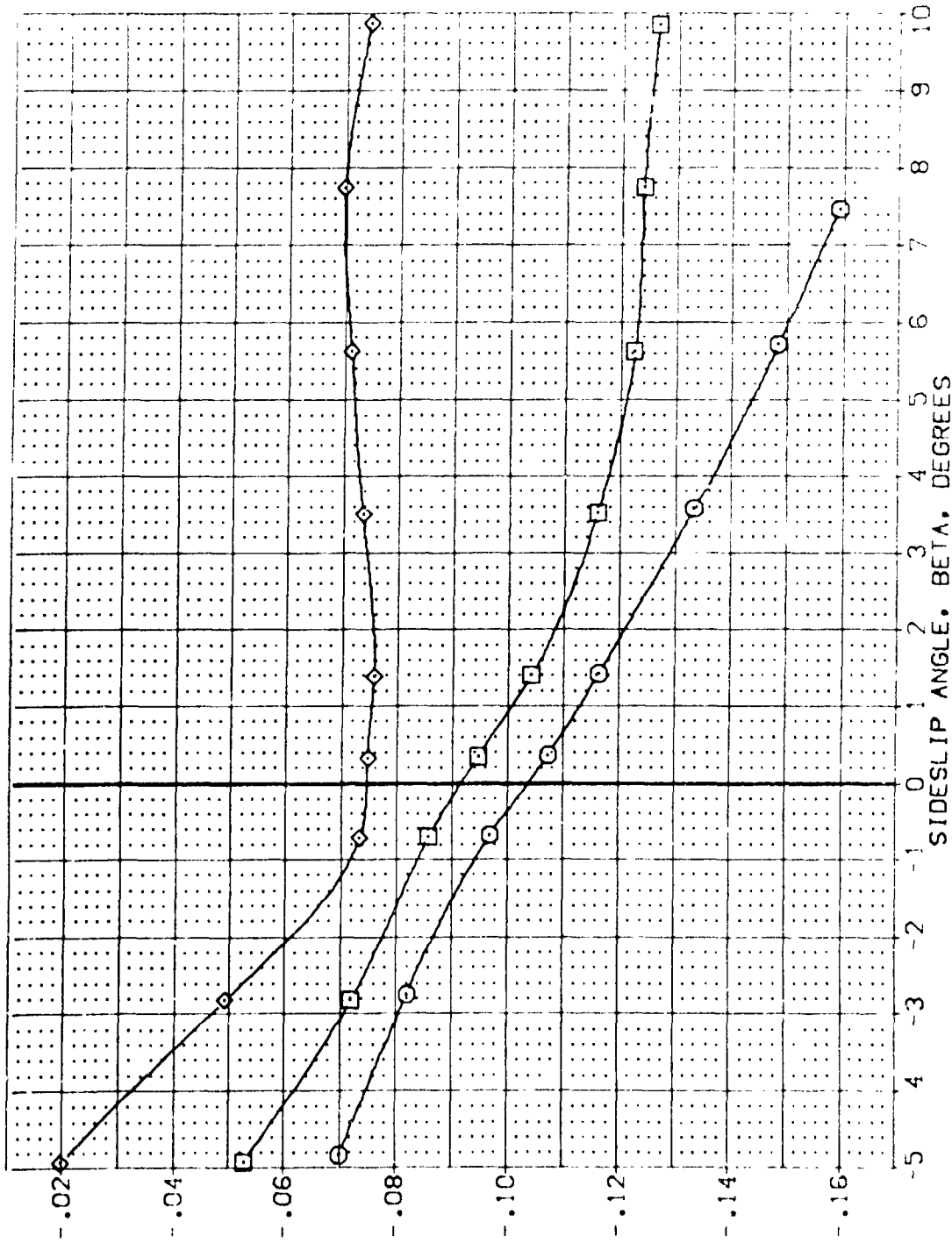


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(C)MACH = 3.50

ALPHA	RUDER	BOFLAP	SPDRBK
0.000	-10.000	-11.700	55.000
10.000	-10.000	-11.700	55.000
20.000	-10.000	-11.700	55.000

REFERENCE INFORMATION	
SREF	2.4210 SQ. FT.
UREF	14.7440 IN.
BREF	28.1004 IN.
XMRP	32.3010 IN.
YMRP	5.0000 IN.
ZMRP	11.2500 IN.
SCALE	1:0300 SCALE

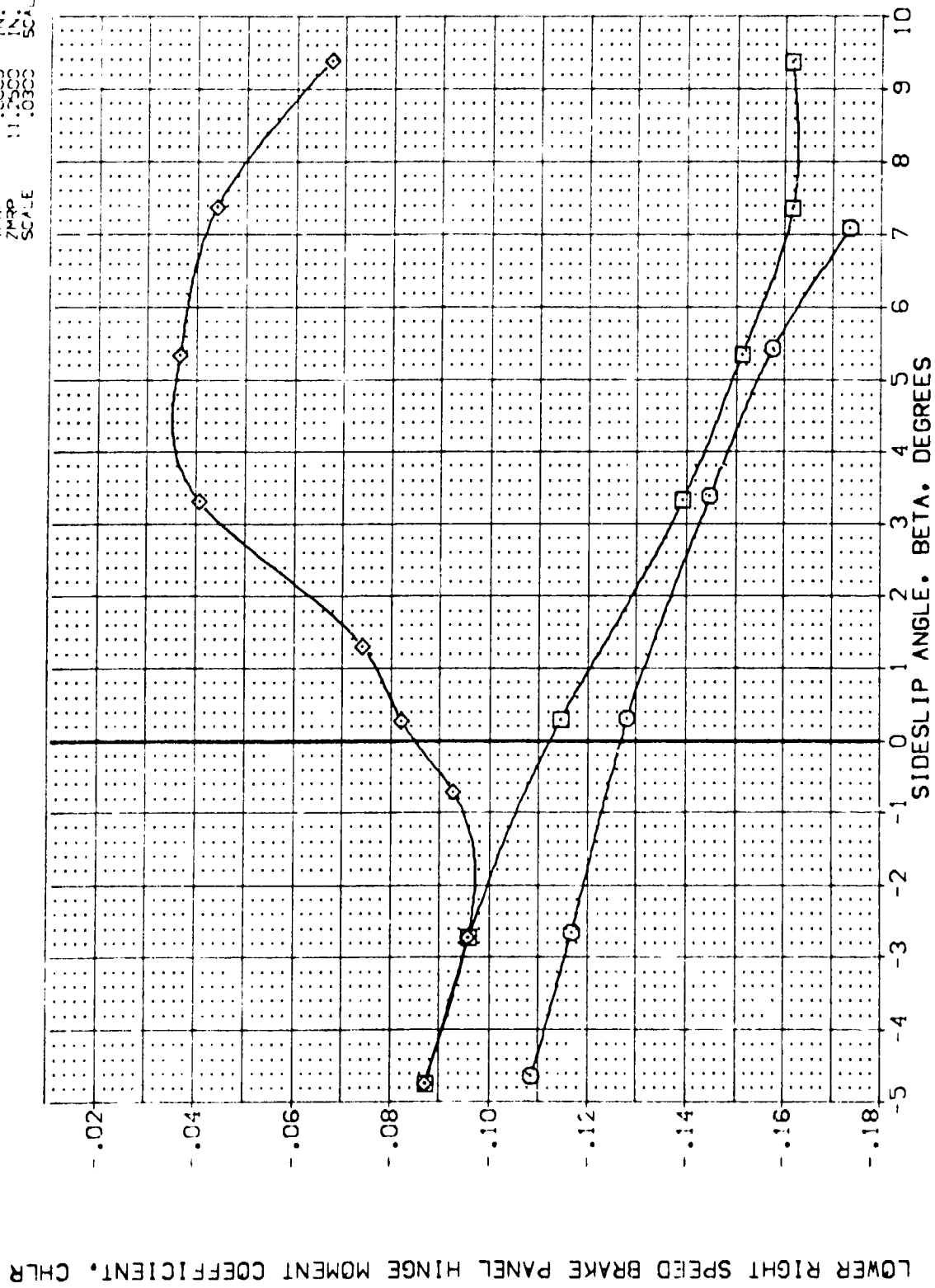


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES

$$[A]_{MAC} = 2.50$$

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DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION
ARC 87-747	QAS3C B C M F V1 V	SREF 2.4210 50.1 FT.
ARC 87-747	QAS3C B C M F V1 V	LRFF 14.2440
ARC 87-747	QAS3C B C M F V1 V	BRFF 28.1004
		XRPP 32.3010
		YMRP .0000
		ZMRP 11.2500
		SCALE .0300

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

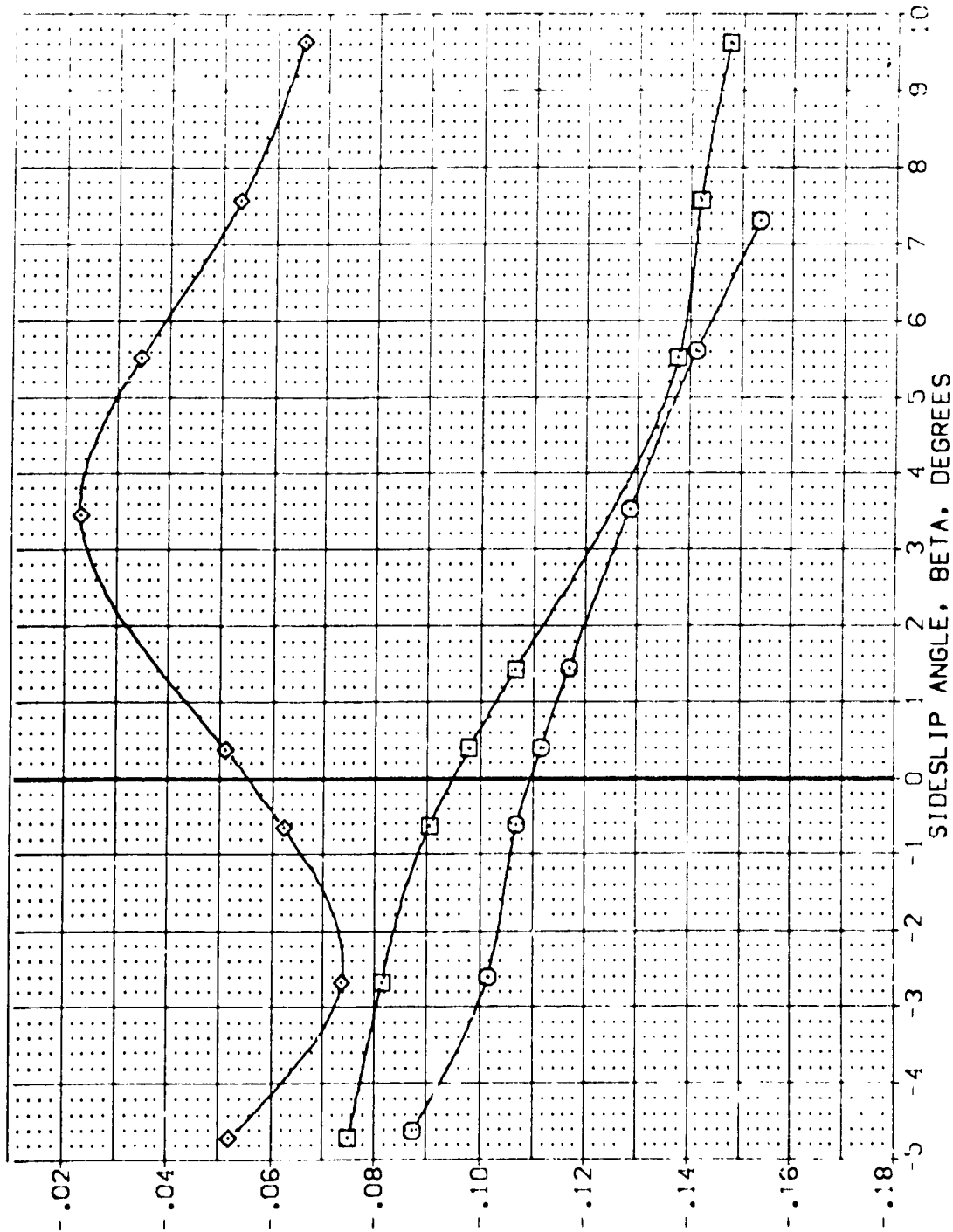


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
[B]VACH = 3.00



DATA SET SYMBOL: (C) CONFIGURATION DESCRIPTION: REFERENCE INFORMATION: SCALE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	REFERENCE INFORMATION	SCALE
(C) 87-747	ARC 87-747 OAS3C B C M F V I V	SREF 2.4210 SQ.FT.	
(C) 87-747	ARC 87-747 OAS3C B C M F V I V	LREF 14.2440 IN.	
(C) 87-747	ARC 87-747 OAS3C B C M F V I V	SPREF 78.1004 IN.	
(C) 87-747	ARC 87-747 OAS3C B C M F V I V	KMRP 32.3010 IN.	
(C) 87-747	ARC 87-747 OAS3C B C M F V I V	ZMRP 11.2500 IN.	

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR

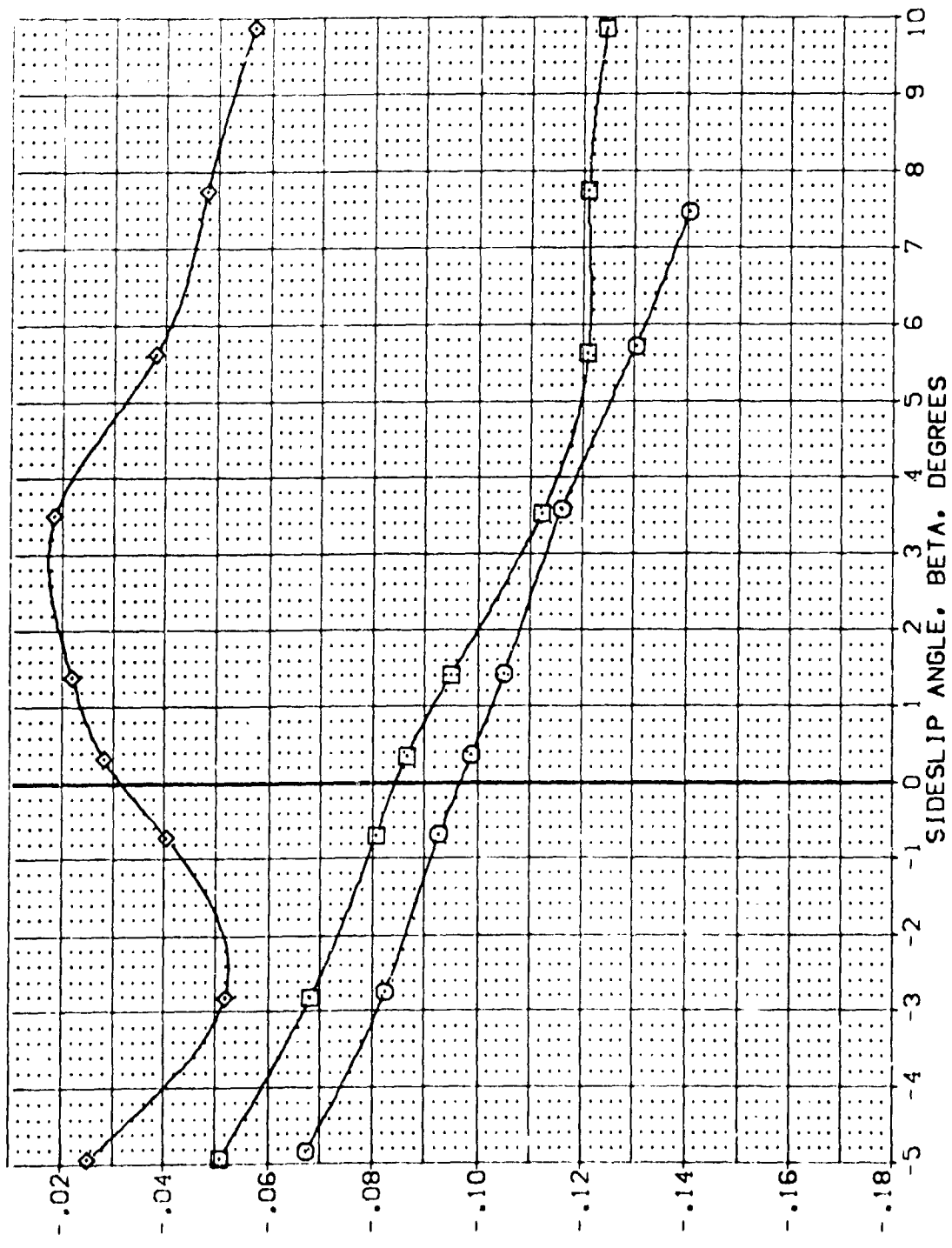


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(C)MACH = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BDF LAP    SPEEDBRAK    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BDF LAP	SPEEDBRAK	REFERENCE INFORMATION
(YEL032)	ARC 87-747 BAS3C B C M F VI V	0.000	-20.000	-11.700	46.000	SREF 2.4210 SQ.FT.
(YEL033)	ARC 87-747 BAS3C B C M F VI V	10.000	-20.000	-11.700	46.000	LREF 14.2440
(YEL034)	ARC 87-747 BAS3C B C M F VI V	20.000	-20.000	-11.700	46.000	SREF 28.1004
						XMRP 32.3010
						YMRP 0000
						ZMRP 11.2500
						SCALE 0.0300

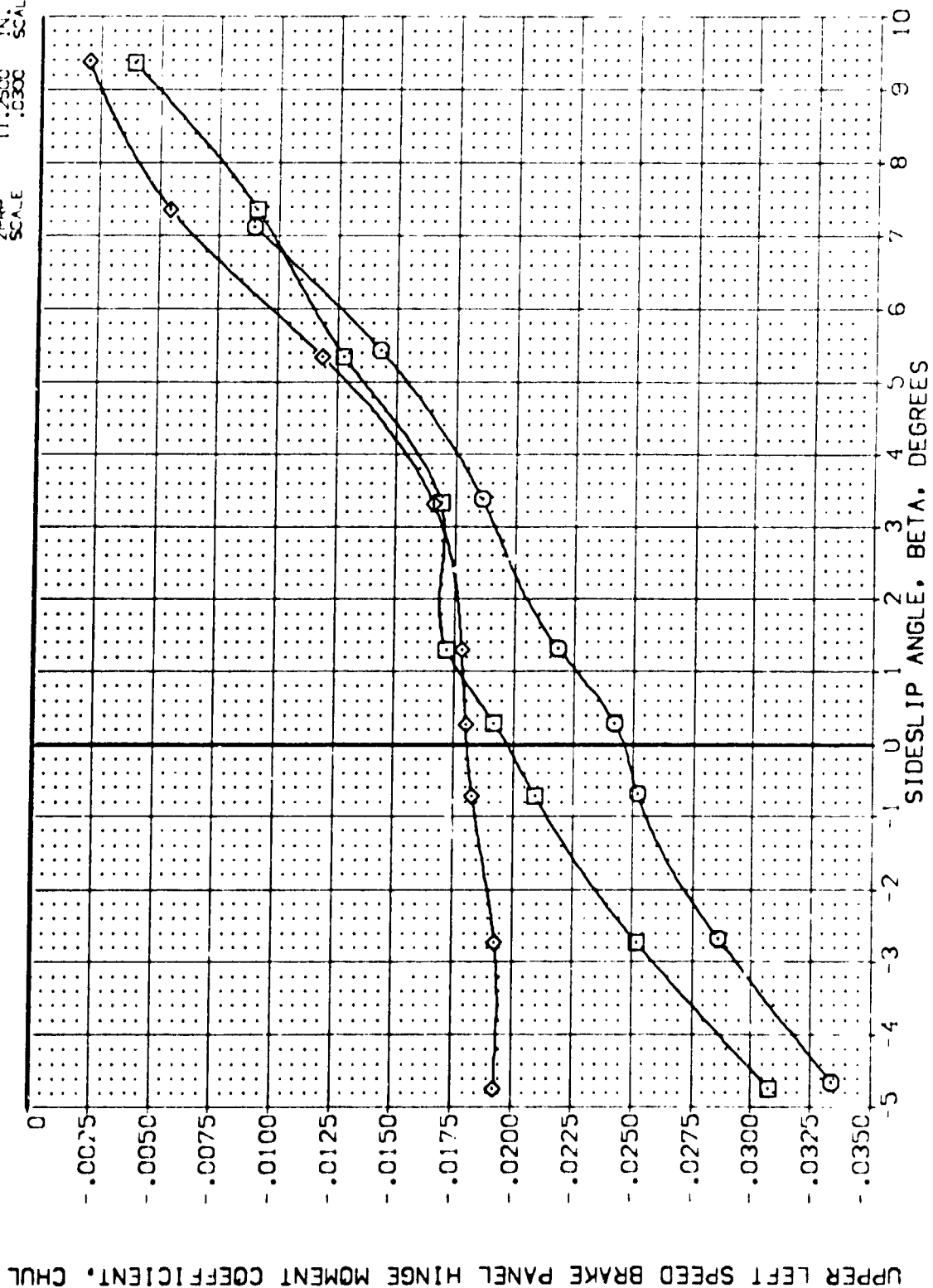


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
 (A)MAC = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPEEDBRAKE	REFERENCE INFORMATION
VE-032	ARC 87-747 BAS3C 8 C M F VI V	0.000	20.000	-11.700	46.000	SREF 2.4210 SCAL
VE-033	ARC 87-747 BAS3C 8 C M F VI V	10.000	20.000	-11.700	46.000	REF 14.7440
VE-034	ARC 87-747 BAS3C 9 C M F VI V	20.000	20.000	-11.700	46.000	BRP 28.1004
						YMRP 32.3010
						ZMRP 11.7500
						SCALE 11.7500
						SCALE 11.7500

UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

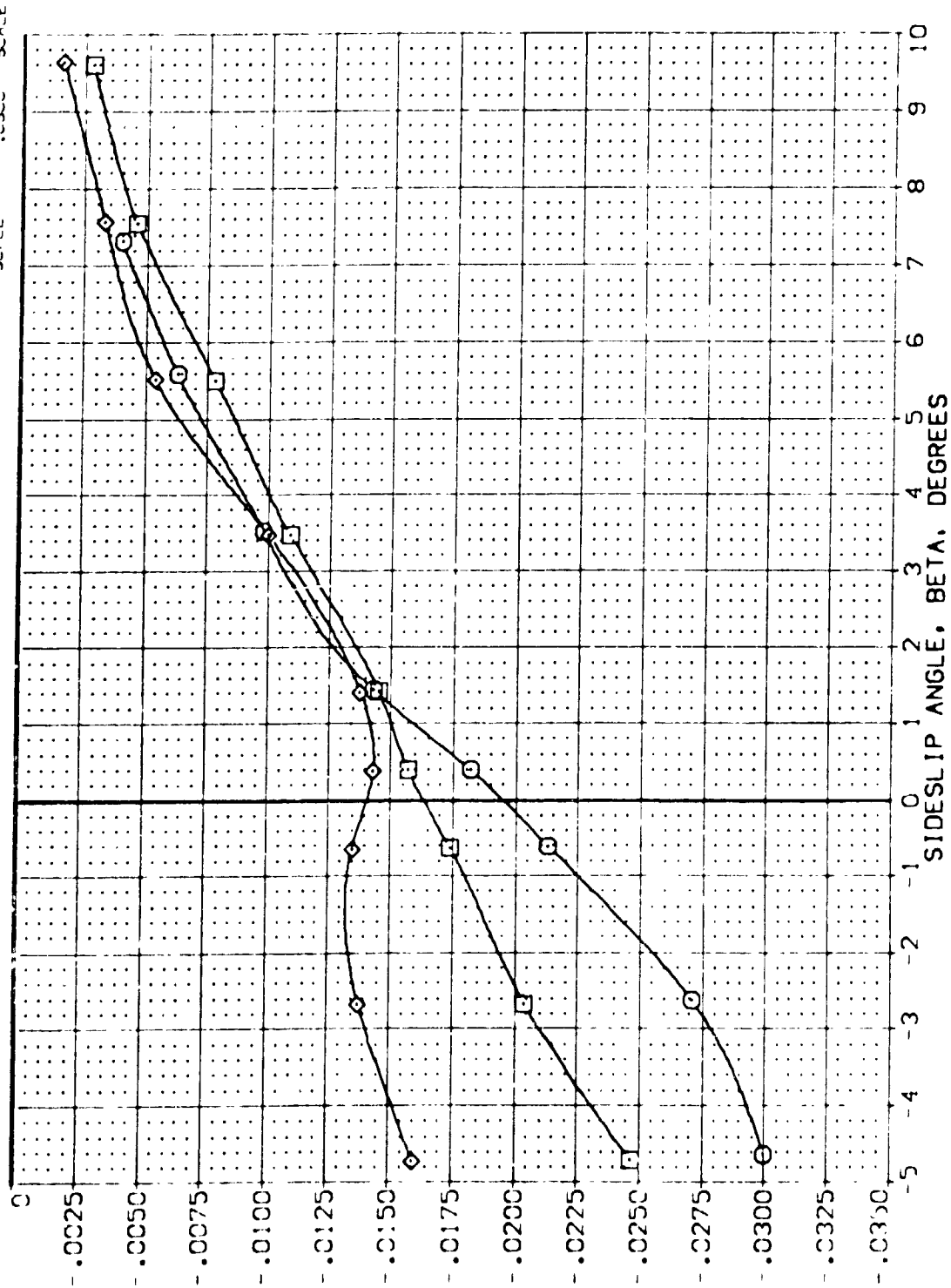


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
 (3)YAC = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(YEL032)	ARC 87-747 BASIC B C M F VI V	0.000	-20.000	-11.700	46.000	SREF 2.4210 50.FT.
(YEL033)	ARC 87-747 BASIC B C M F VI V	10.000	-20.000	-11.700	46.000	REF 14.2440
(YEL034)	ARC 87-747 BASIC B C M F VI V	20.000	-20.000	-11.700	46.000	REF 28.1004
						YMRP 37.3010
						ZMRP 11.0000
						ZMRP 11.2500
						SCALE .0300

UPPER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUL

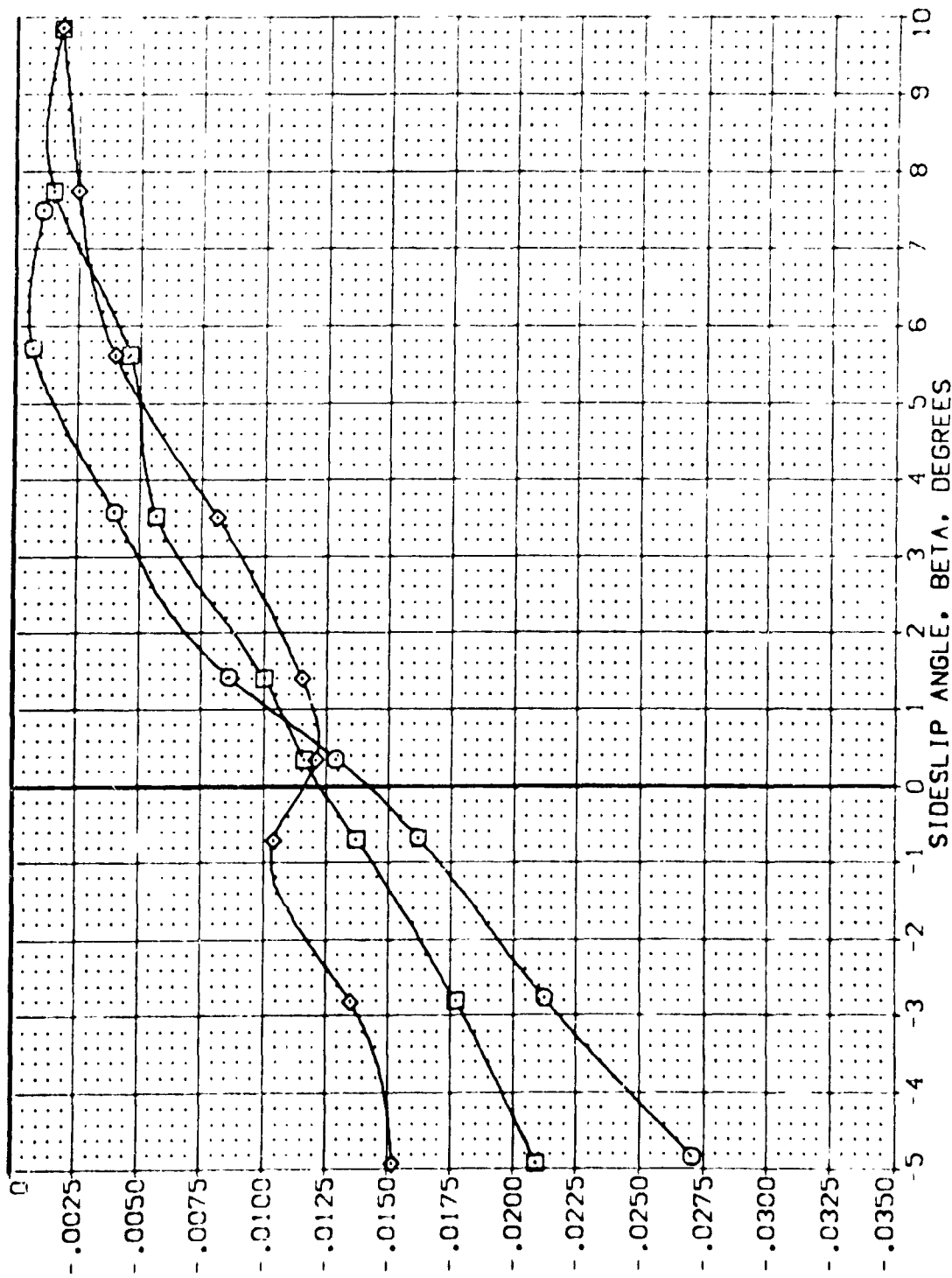


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(C)MACH = 3.50

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPOBRK    REFERENCE INFORMATION

[YEL032]	ARC 87-747 CAS3C B C H F V	0.000	-20.000	-11.700	46.000	SREF 2.4210
[YEL033]	ARC 87-747 CAS3C B C H F V	10.000	-20.000	-11.700	46.000	LRFF 14.2140
[YEL034]	ARC 87-747 CAS3C B C H F V	20.000	-20.000	-11.700	46.000	BRFF 38.1000
						YMRP 37.9010
						ZMRP 11.2000
						SCALE 0.0000
						SCALE 0.0000

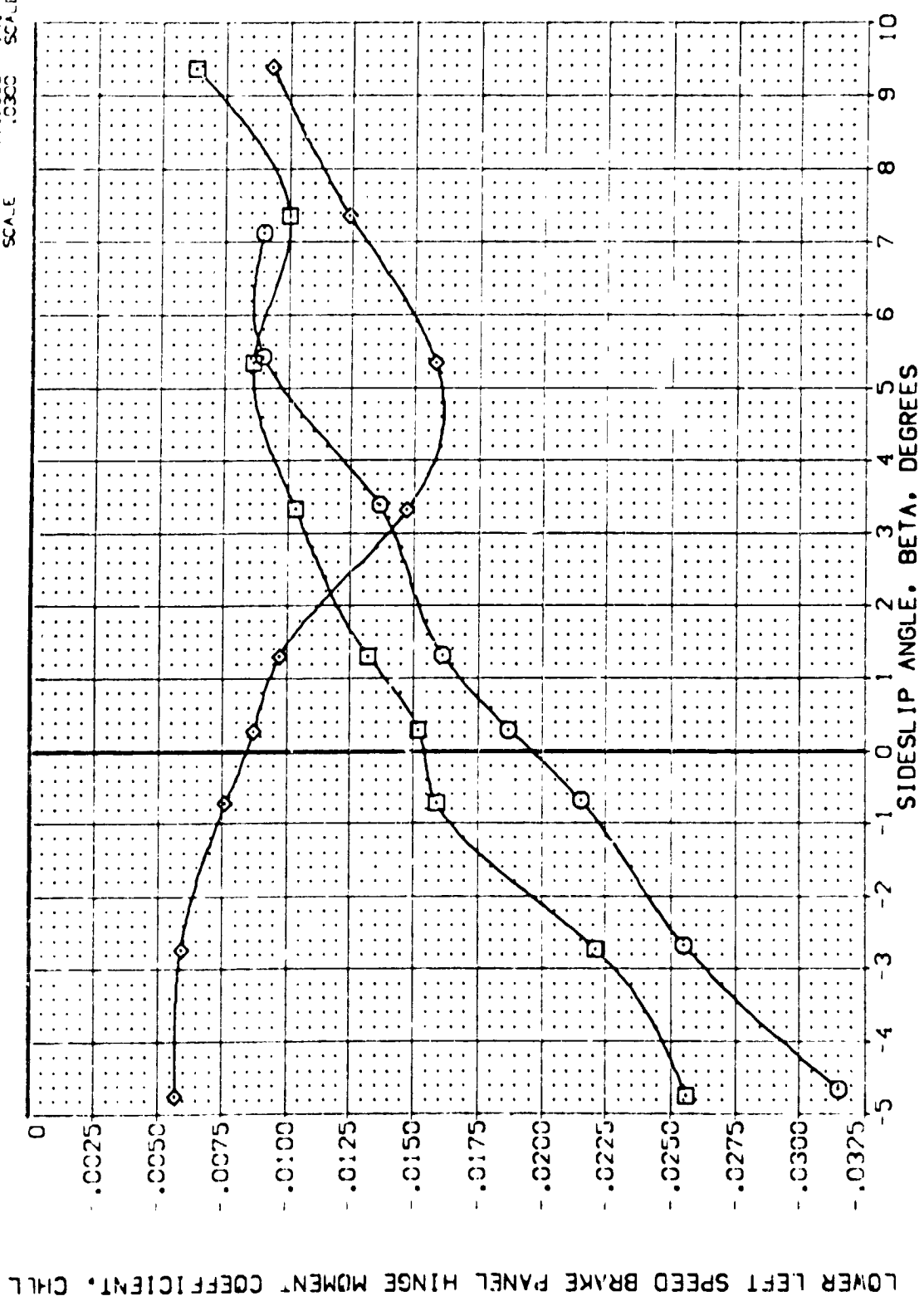


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES

(A)MACH = 2.50

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      RUDDER      BOF LAP      SPOBOK      REFERENCE INFORMATION

(5-032)	ARC 87-747 CAS3C B C M F VI V	0.000	-20.000	-11.700	46.000	SREF 2.4210
(5-033)	ARC 87-747 CAS3C B C M F VI V	10.000	-20.000	-11.700	46.000	LRREF 14.2440
(5-034)	ARC 97-747 CAS3C B C M F VI V	20.000	-20.000	-11.700	46.000	BRREF 28.1000
						AMRP 32.3000
						YMRP 11.0000
						ZMRP 11.0000
						SCALE 1.0000

LOWER LEFT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLL

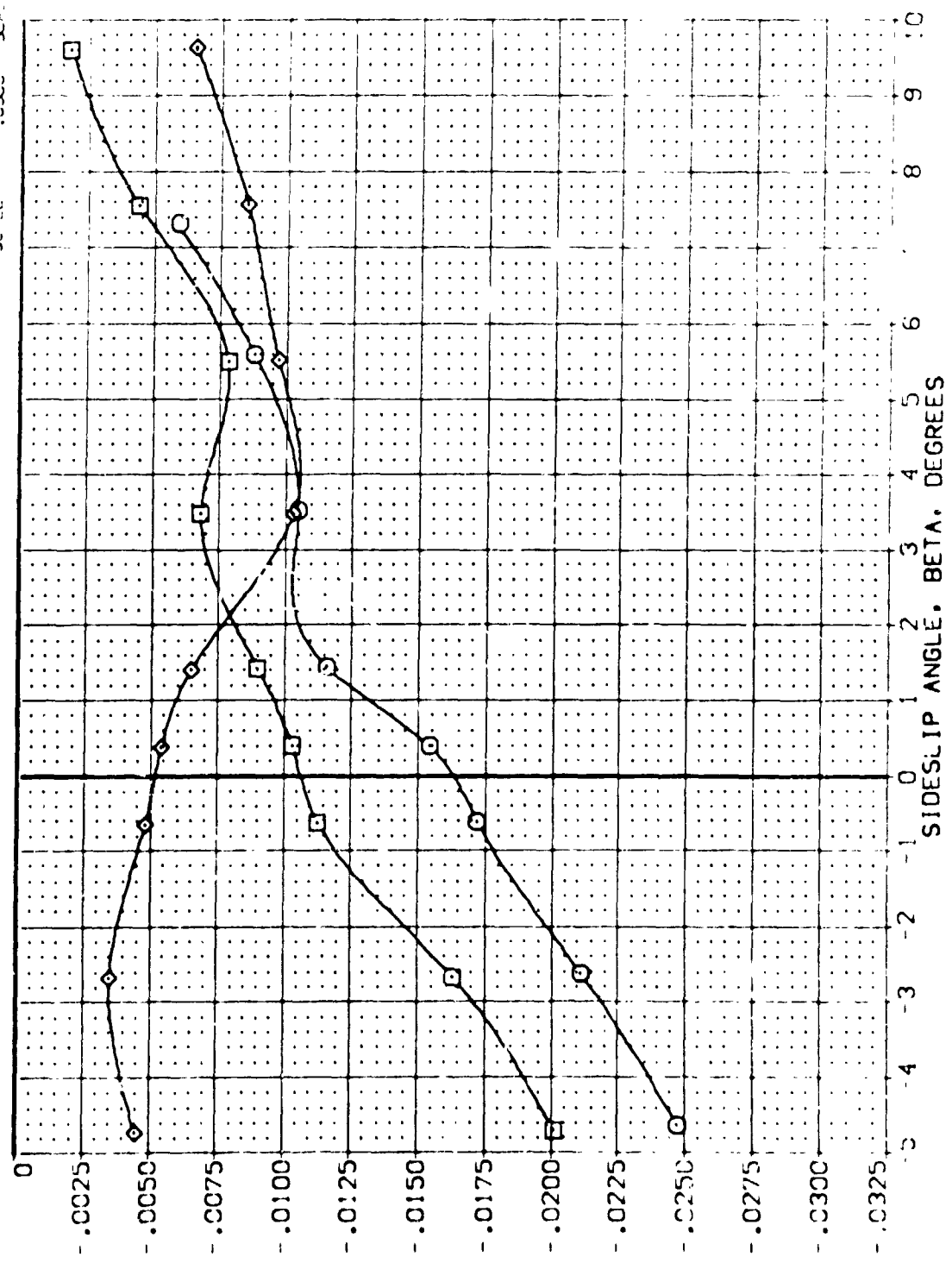


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAIN = 55 DEGREES  
(B)MAC = 3.00      PAGE 808



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BDF LAP    SPOBRK    REFERENCE INFORMATION

(VELO32)	ARC 87-747 D453C B C M F VI	0.000	-20.000	-11.700	46.000	2.4210
(VELO33)	ARC 87-747 D453C B C M F VI	10.000	-20.000	-11.700	46.000	14.2440
(VELO34)	ARC 87-747 D453C B C M F VI	20.000	-20.000	-11.700	46.000	28.1004

XREF: 2.4210 32.1010  
 YREF: 14.2440 11.2500  
 ZREF: 28.1004 0.0000  
 SCALE: 11.2500 0.0000

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

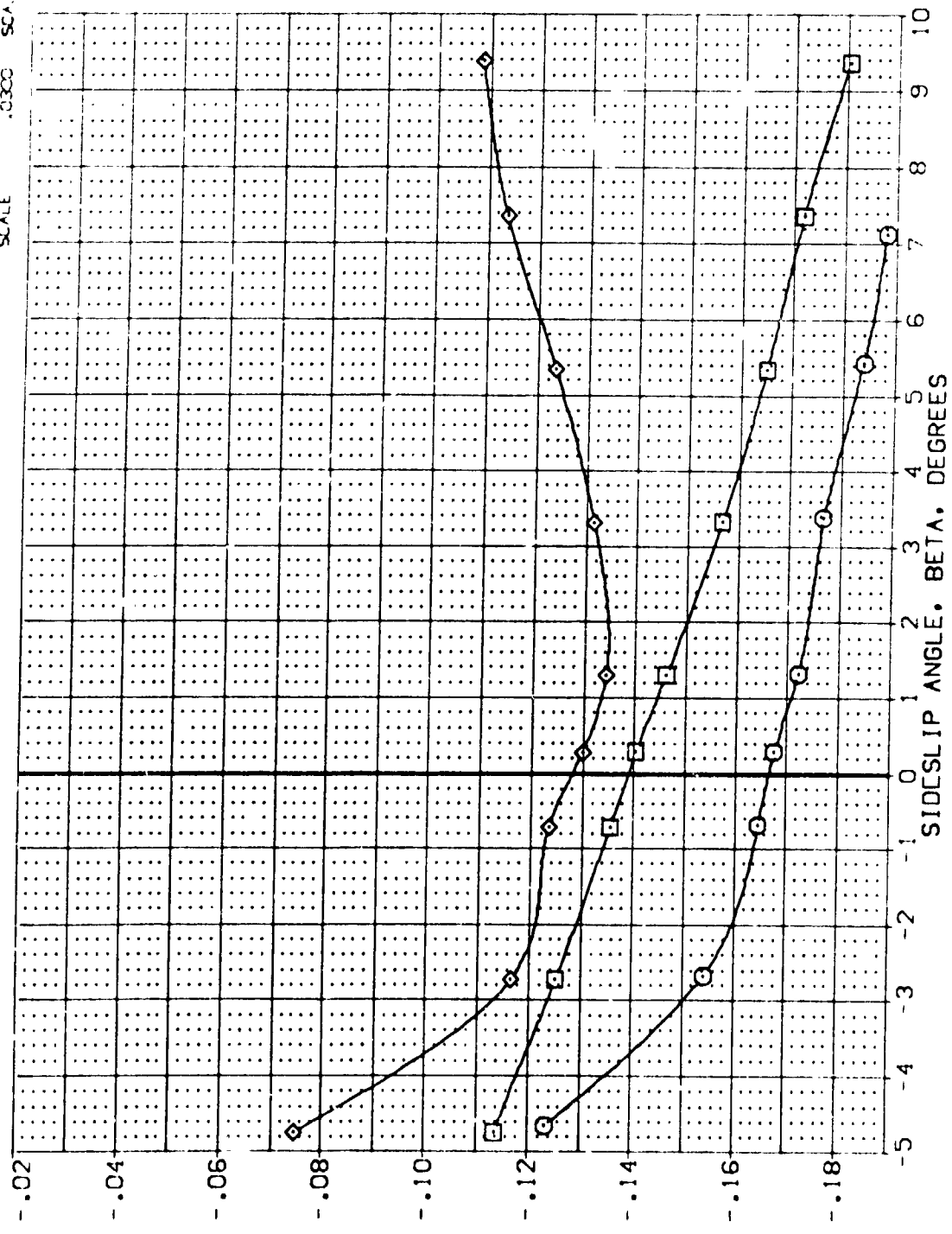


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
 (A)MACH = 2.50      PAGE 810



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BOFLAP    SPODBRK    REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPODBRK	REFERENCE INFORMATION
(YEL032)	ARC 87-747 GAS3C B C M F V I V	0.000	-20.000	-11.700	46.000	SREF 2.4210 SQ.FT.
(YEL033)	ARC 87-747 GAS3C B C M F V I V	10.000	-20.000	-11.700	46.000	LREF 14.2440 IN.
(YEL034)	ARC 87-747 GAS3C B C M F V I V	20.000	-20.000	-11.700	46.000	BREF 28.1004 IN.
						XMRP 32.3010 IN.
						YMRP 11.2500 IN.
						ZMRP 0.0300 IN.
						SCALE

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

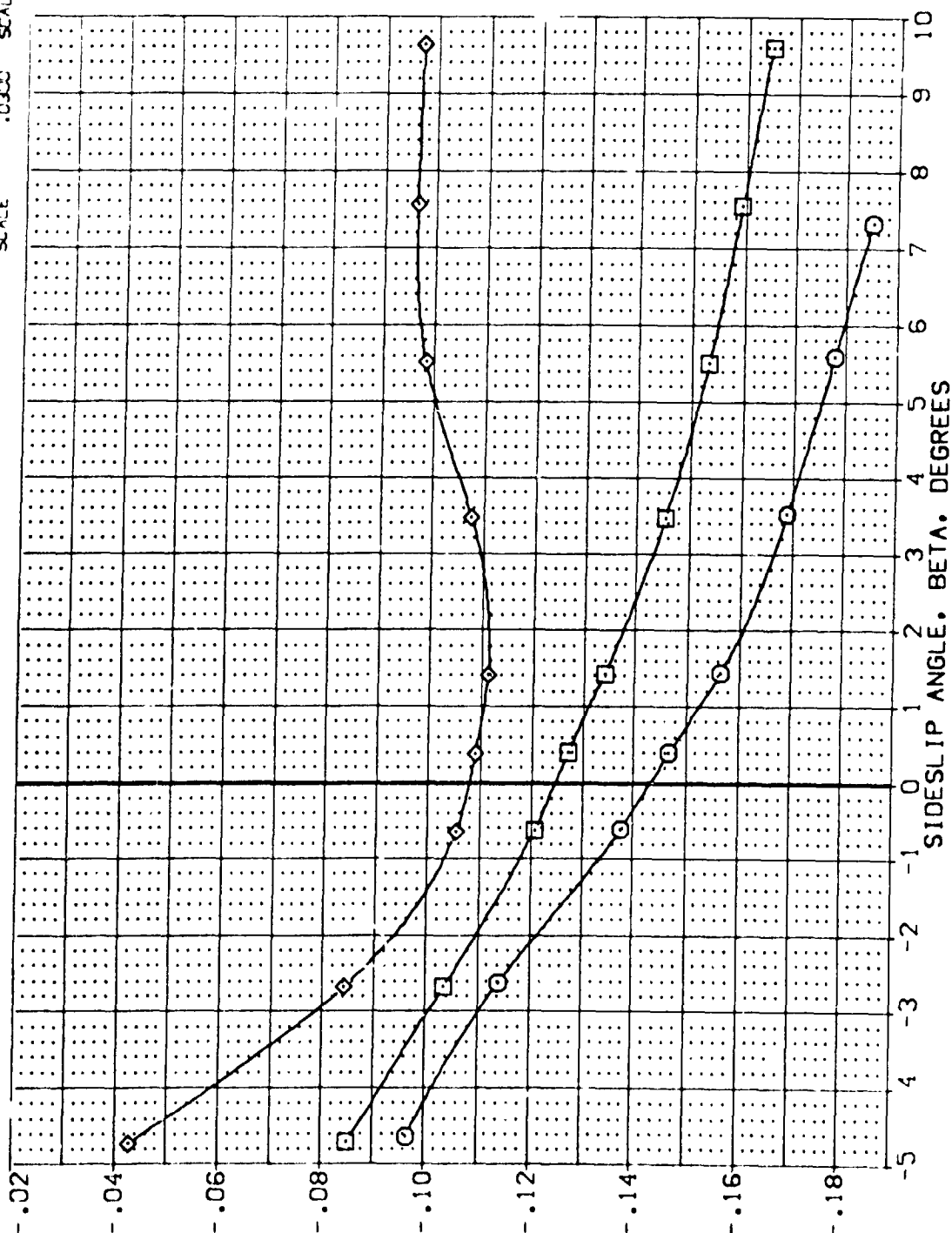


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(B)MACH = 3.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPOBRK	REFERENCE INFORMATION
(YEL032)	ARC 87-747 DASSC B C M F VI V	0.000	-20.000	-11.700	46.000	SREF 2.4210 SQ.FT.
(YEL033)	ARC 87-747 DASSC B C M F VI V	10.000	-20.000	-11.700	46.000	LREF 14.7440 IN.
(YEL034)	ARC 87-747 DASSC B C M F VI V	20.000	-20.000	-11.700	46.000	BREF 28.1004 IN.
						XMRP 32.3010 IN.
						YMRP .0000 IN.
						ZMRP 11.2500 IN.
						SCALE .0300 SCALE

UPPER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHUR

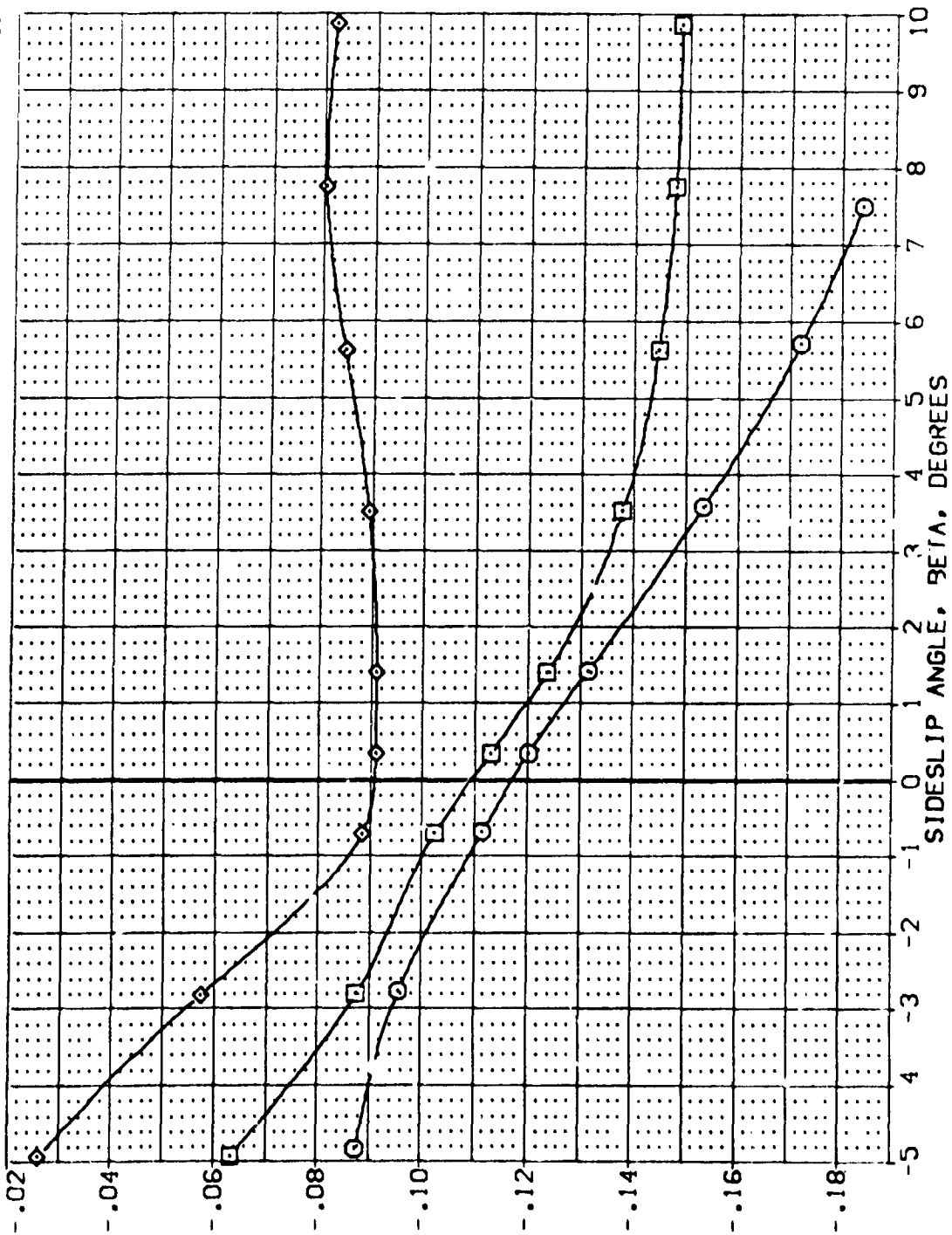
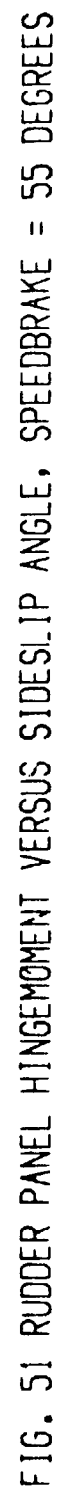


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(C)MACH = 3.50

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHLR



PAGE 813

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    RUDDER    BDF LAP    SPOBRK    REFERENCE INFORMATION

(VELO32)	ARC 87-747 DA53C B C M F V1 V	0.000	-20.000	-11.700	46.000	SREF 2.4210
(VELO33)	ARC 87-747 DA53C B C M F V1 V	10.000	-20.000	-11.700	46.000	LREF 14.2440
(VELO34)	ARC 87-747 DA53C B C M F V1 V	20.000	-20.000	-11.700	46.000	BREF 28.1004
						XMRP 32.3010
						YMRP 0.0000
						ZMRP 11.2500
						SCALE 0.0300

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CHL 2

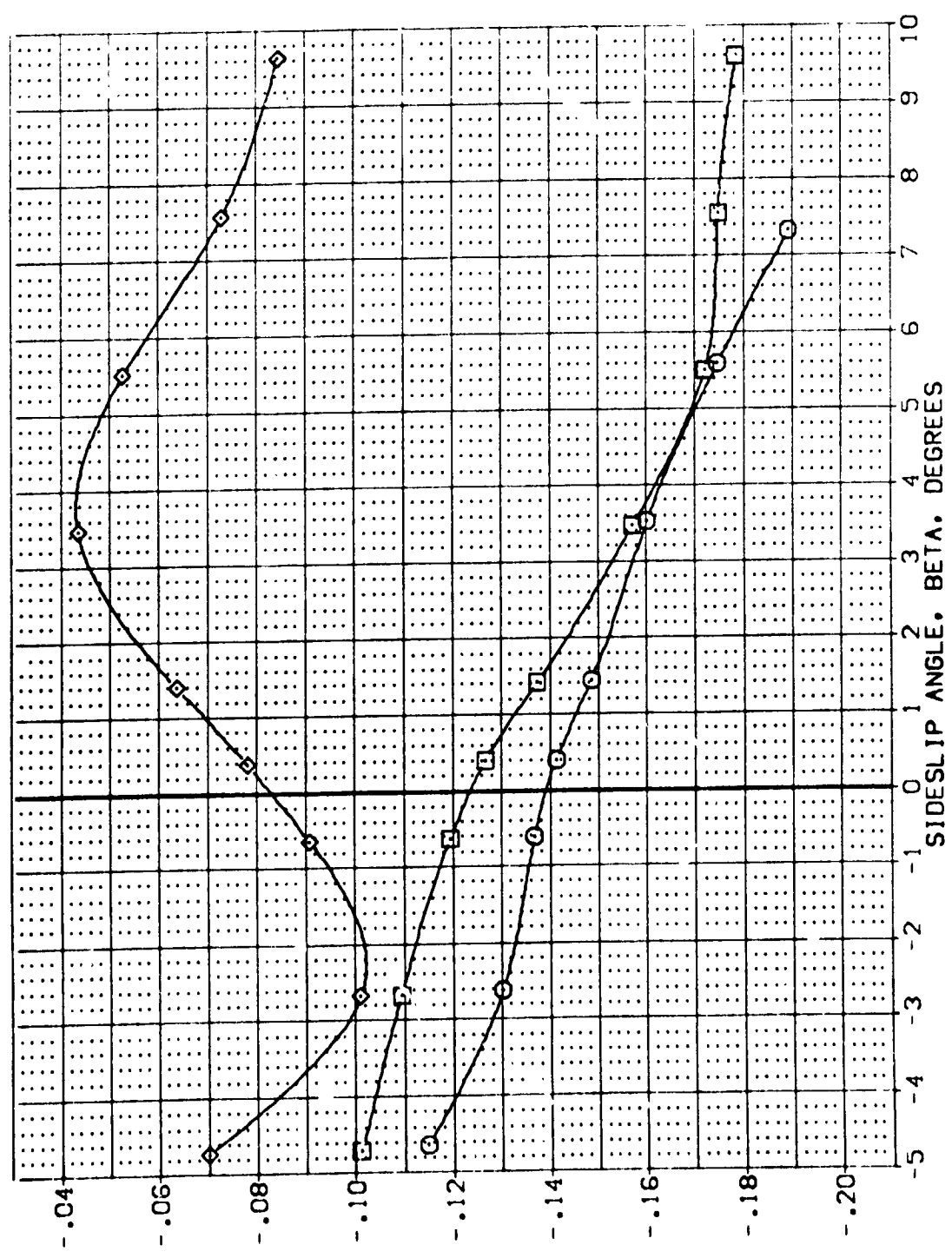


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES  
(B)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	BOFLAP	SPDRBK	REFERENCE INFORMATION
(VELO32)	ARC 87-747 OAS3C B C M F V1	.000	-20.000	-11.700	46.000	SREF 2.4210 SQ.FT.
(VELO33)	ARC 87-747 OAS3C B C M F V1	10.000	-20.000	-11.700	46.000	LREF 14.2440 IN.
(VELO34)	ARC 87-747 OAS3C B C M F V1	20.000	-20.000	-11.700	46.000	BREF 28.1004 IN.
						XMRRP 32.3010 IN.
						YMRRP 11.0000 IN.
						ZMRRP 11.2500 IN.
						SCALE .0300 SCALE

LOWER RIGHT SPEED BRAKE PANEL HINGE MOMENT COEFFICIENT, CLRR

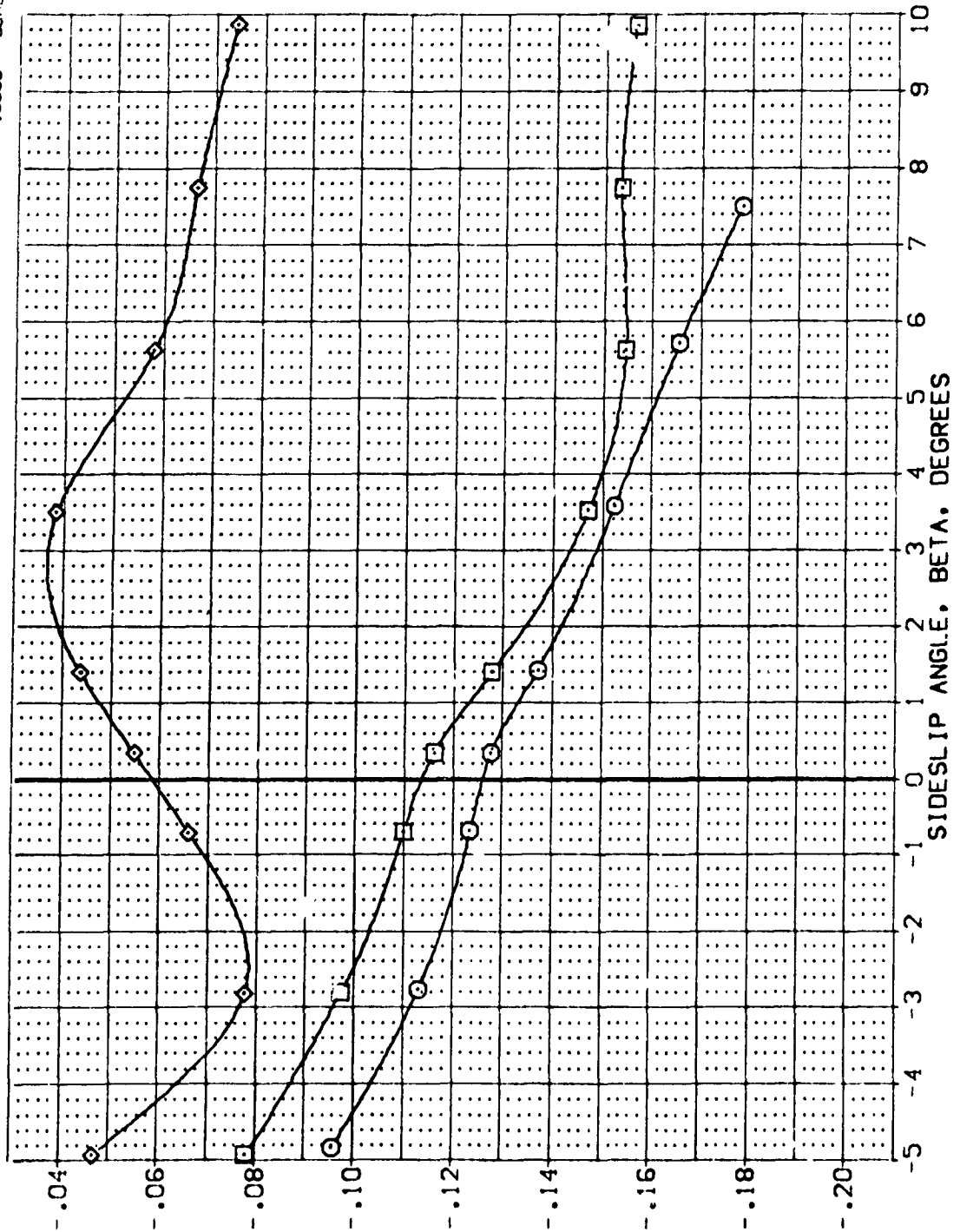


FIG. 51 RUDDER PANEL HINGEMOMENT VERSUS SIDESLIP ANGLE, SPEEDBRAKE = 55 DEGREES

(C)MACH = 3.50

APPENDIX  
TABULATED SOURCE DATA

Tabulations of plotted data are available on request from  
Data Management Services.

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS5C

PAGE 1

ARC 87-747 QAS5C B C M F W V NOM. RN/L

(RELO52) ( 11 APR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0000 SCALE

BETA = .000 ELEVON = -10.000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -10.000 ELEV-R = -10.000

PARAMETRIC DATA

RUN NO. 514/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
2.498	-.591	-.07320	.13080	.13000	-.07650	.02510	315.90000	.11094	.01906	.11172	-.57466
2.498	.129	-.06040	.12840	.12850	-.06010	.02420	315.90000	.10944	.01956	.10931	-.47044
2.498	1.143	-.03650	.12650	.12720	-.03400	.02200	315.90000	.10770	.01950	.10700	-.28879
2.498	3.161	.01980	.12460	.12340	.02670	.01560	315.90000	.10322	.02018	.10454	.15924
2.498	5.192	.01570	.12660	.11920	.08780	.01470	315.90000	.09866	.02054	.10620	.60520
2.498	7.219	.13610	.13270	.11450	.15170	.00950	315.90000	.09387	.02063	.11219	1.02604
2.498	9.246	.19480	.14280	.10970	.21520	.01110	315.90000	.08209	.02037	.12275	1.36350
2.498	12.300	.29440	.16850	.10290	.32380	.00930	315.90000	.07732	.02001	.14996	1.73697
2.498	15.360	.39420	.21060	.09860	.43590	.00610	315.90000	.07205	.02128	.19002	1.87238
2.498	18.410	.48930	.26230	.09440	.54710	.00160	315.90000	.06556	.02215	.24133	1.86501
2.498	21.460	.58300	.32430	.08860	.66120	-.00200	315.90000	.05916	.02304	.30291	1.79723
2.498	24.510	.68150	.40180	.08280	.78680	-.00500	315.90000	.05324	.02364	.38023	1.69648
2.498	27.360	.76740	.48300	.07630	.90360	-.01070	315.90000	.05324	.02306	.46256	1.58880
2.498	GRADIENT	.02556	-.00156	-.00173	.02774	-.00260	.00000	-.00205	.00032	-.00184	.19820

RUN NO. 515/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
3.001	-.611	-.06880	.11670	.11600	-.07010	.00670	285.50000	.10359	.01241	.10434	-.58984
3.001	.079	-.05640	.11430	.11440	-.05630	.00650	285.50000	.10184	.01256	.10176	-.45384
3.001	1.093	-.04120	.11160	.11240	-.03910	.00760	285.50000	.09918	.01322	.09842	-.36940
3.001	3.122	.00930	.10940	.10880	.01520	.00820	285.50000	.09545	.01335	.09613	.08452
3.001	5.136	.06580	.11070	.10440	.07540	.00950	285.50000	.09031	.01409	.09670	.59380
3.001	7.161	.11280	.11500	.10000	.12620	.00580	285.50000	.08640	.01360	.10146	.98084
3.001	9.189	.16310	.12350	.09590	.18080	.00710	285.50000	.08190	.01400	.10972	1.32073
3.001	12.220	.25020	.14700	.09070	.27570	.00540	285.50000	.07651	.01419	.13313	1.70240
3.001	15.260	.33820	.18230	.08600	.37420	.00510	285.50000	.07268	.01422	.16861	1.85457
3.001	18.310	.43290	.23010	.08250	.48330	.00200	285.50000	.06817	.01433	.21655	1.88096
3.001	21.350	.51930	.28700	.07820	.58820	.00110	285.50000	.06355	.0165	.27333	1.80978
3.001	24.400	.60750	.35640	.07350	.70050	.00090	285.50000	.05868	.01483	.34282	1.70515
3.001	27.240	.69320	.43440	.06880	.81510	-.00360	285.50000	.05397	.01483	.42107	1.59632
3.001	GRADIENT	.02096	-.00188	-.00191	.02289	.00016	.00000	-.00217	.00026	-.00213	.18178

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

PAGE 2

ARC 07-747 0453C B C N F M V NOM. RN/L

(REL002) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = -10.000  
 AIRLON = .000 BDFLAP = -11.700  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = -10.000 ELEV-R = -10.000

## PARAMETRIC DATA

RUN NO. 516/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	COF	L/D
3.496	-8.53	-0.6290	.10590	.10500	-0.06450	-0.00060	249.40000	.09793	.00707	.09888	-59397
3.496	-1.66	-0.05660	.10350	.10330	-0.05690	.00000	249.40000	.09611	.00719	.09827	-54706
3.496	.851	-0.03920	.10070	.10130	-0.03770	.00140	249.40000	.09403	.00727	.09346	-38918
3.496	2.858	.00330	.09720	.09690	.00820	-0.00040	249.40000	.08944	.00746	.08974	.03455
3.496	4.877	.04020	.09670	.09300	.04830	.00230	249.40000	.08451	.00849	.08831	.41561
3.496	6.898	.09370	.10080	.08880	.10510	.00130	249.40000	.08073	.00807	.09276	.92949
3.496	8.918	.14160	.10880	.08550	.15680	.00380	249.40000	.07668	.00882	.10006	1.30225
3.496	11.960	.22150	.13000	.08130	.24360	.00620	249.40000	.07284	.00846	.12174	1.70330
3.496	14.290	.30750	.16250	.07780	.33920	.00470	249.40000	.06863	.00917	.15402	1.88803
3.496	16.120	.39070	.20510	.07410	.43500	.00380	249.40000	.06561	.00849	.19696	1.90575
3.496	21.060	.47620	.25920	.07080	.53750	.00490	249.40000	.06186	.00894	.25087	1.83689
3.496	24.110	.56220	.32500	.06720	.64600	.00450	249.40000	.05799	.00921	.31681	1.72865
3.496	26.940	.64300	.39860	.06410	.75380	.00660	249.40000	.05485	.00925	.39041	1.61280
GRADIENT	.01863	-0.01160	-0.00209	.02032	.00038	.00000		-0.00232	.00023	-0.00181	.18319



DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

PAGE 3

ARC 87-747 0453C B C W F M V NOM. RN/L

(REL003) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = 1.000 SCALE

BETA = .000 ELEVON = 15.000  
 AILRON = .000 BDFLAP = -11.700  
 SPD8RK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

## PARAMETRIC DATA

FIN NO. 503/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.498	-584	-.00940	.13550	.13540	-.01080	-.02700	320.40000	.11447	.02093	.11458	-.06951
2.498	.129	.00010	.13490	.13490	.00040	-.02840	320.40000	.11397	.02093	.11397	.00070
2.498	1.146	.02250	.13440	.13400	.02520	-.02950	320.40000	.11280	.02120	.11327	.16753
2.498	3.168	.08330	.13730	.13250	.09030	-.03530	320.40000	.11121	.02129	.11606	.16061
2.498	5.193	.13680	.14120	.12830	.15900	-.03970	320.40000	.10560	.02270	.11865	.96826
2.498	7.218	.19560	.15340	.12760	.21340	-.04230	320.40000	.10569	.02191	.13167	1.27559
2.498	9.250	.26110	.16870	.12450	.28480	-.04570	320.40000	.10278	.02177	.14722	1.54799
2.498	12.390	.36140	.20240	.12070	.39620	-.05180	320.40000	.09539	.02131	.18151	1.78614
2.498	15.360	.46460	.25080	.11890	.51450	-.05970	320.40000	.08701	.02189	.22983	1.85118
2.498	18.400	.56390	.31090	.11700	.63320	-.06980	320.40000	.09505	.02195	.29000	1.81363
2.498	21.450	.66020	.38120	.11350	.75390	-.08080	320.40000	.09138	.02192	.36086	1.73158
2.498	24.510	.76120	.46930	.11120	.88730	-.09410	320.40000	.08848	.02272	.44860	1.62209
2.498	27.300	.84880	.56140	.10790	1.01200	-.10430	320.40000	.08532	.02253	.54132	1.51222
GRADIENT		.02532	.00054	-.00078	.02769	-.00220	.00000	-.00089	.00011	.00044	.18474

RUN NO. 504/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.001	-.627	-.02500	.11970	.11940	-.02630	-.02800	288.30000	.10576	.01364	.10604	-.20883
3.001	.081	-.01540	.11850	.11860	-.01530	-.02820	288.30000	.10463	.01397	.10461	-.13044
3.001	1.089	.00450	.11750	.11740	.00670	-.02970	288.30000	.10334	.01406	.10344	.03802
3.001	3.113	.04790	.11830	.11550	.05420	-.02850	288.30000	.10154	.01396	.10434	.40455
3.001	5.135	.09820	.12160	.11240	.11270	-.03070	288.30000	.09774	.01466	.10707	.80708
3.001	7.156	.15460	.12960	.10930	.16960	-.03390	288.30000	.09495	.01435	.11533	1.19361
3.001	9.177	.19570	.14040	.10740	.21560	-.03180	288.30000	.09288	.01452	.12608	1.59386
3.001	12.230	.30760	.17400	.10490	.33750	-.04490	288.30000	.09001	.01489	.15946	1.76773
3.001	15.260	.39800	.21660	.10410	.44100	-.05100	288.30000	.08872	.01538	.18387	1.83957
3.001	18.310	.49290	.27110	.10250	.55310	-.06020	288.30000	.08713	.01537	.21646	1.81332
3.001	21.350	.58540	.33720	.10100	.66800	-.06690	288.30000	.08609	.01491	.32338	1.73573
3.001	24.410	.68770	.42200	.10010	.80060	-.07990	288.30000	.08469	.01541	.43798	1.62950
3.001	27.280	.77520	.51140	.09920	.92340	-.08880	288.30000	.08292	.01528	.49781	1.51591
GRADIENT		.01985	-.00031	-.00104	.02188	-.00016	.00000	-.00110	.00006	-.00038	.16721

ARC 87-747 0433C B C N F M V NON. RN/L

(RELO03) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4215 50.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 20.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 AILRON = .000 BDFLAP = -11.700  
 SPBRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

FUN NO. 505/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CDF	L/D
3.496	-0.876	-0.04110	.10820	.10760	-.04280	-.02640	251.90000	.09956	.00804	.10020	-.38018
3.496	-.167	-.03330	.10660	.10650	-.03360	-.02770	251.90000	.09837	.00813	.09847	-.31230
3.496	.840	-.00320	.10500	.10510	-.00670	-.02860	251.90000	.09715	.00795	.09794	-.07848
3.496	2.664	.02690	.10360	.10220	.03200	-.02740	251.90000	.09409	.00811	.09557	.25903
3.496	4.877	.07840	.10640	.09930	.08720	-.03050	251.90000	.09089	.00841	.09797	.73756
3.496	6.898	.12380	.11260	.09690	.13650	-.03060	251.90000	.08770	.00920	.10345	1.10020
3.496	8.920	.18810	.12560	.09490	.20330	-.03380	251.90000	.08591	.00899	.11670	1.49781
3.496	11.950	.26550	.15200	.09370	.29120	-.04070	251.90000	.08489	.00881	.14334	1.74704
3.496	14.980	.35620	.19160	.09300	.39360	-.04650	251.90000	.08374	.00926	.18263	1.85922
3.496	18.020	.44960	.24330	.09220	.50280	-.05420	251.90000	.08319	.00901	.23465	1.84801
3.496	21.060	.54040	.30660	.09190	.61450	-.06090	251.90000	.08248	.00922	.29798	1.76278
3.496	24.100	.62950	.38230	.09190	.75070	-.07050	251.90000	.08237	.00933	.37356	1.64675
3.496	26.970	.71780	.46880	.09220	.85240	-.07750	251.90000	.08283	.00937	.46041	1.53146
GRADIENT		.02079	-.00034	-.00144	.02260	-.00052	.00000	-.00149	.00006	-.00040	.19518

DATE 15 JUL 74

## TABULATED SOURCE DATA - QASSC

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ARC 87-747 QASSC B C M F M V NOM. RN/L

(REL004) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4215 SQ.FT. XMRP = 32.9010 IN.  
 -REF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 26.1004 IN. ZMRP = 1.2500 IN.  
 SCALE = .0300 SCALE

BETA =  
 AILRON =  
 SPBRK =  
 ELEV-L =

.000 ELEVON = .000  
 5.000 BSFLAP = -11.700  
 55.000 RUDDER = .000  
 5.000 ELEV-R = -5.000

## PARAMETRIC DATA

RUN NO. 407/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L <sup>m</sup>
2.499	-1.566	-0.4990	.12800	.12750	-.05120	.00480	323.20000	.10736	.02014	.10786	-.39014
2.499	-1.599	-0.5320	.12710	.12700	-.03940	.00330	323.20000	.10506	.02194	.10513	-.39834
2.499	1.415	-.05310	.12500	.12510	-.00200	.00300	323.20000	.10409	.02101	.10401	-.04070
2.499	3.443	.05210	.12590	.12250	.05960	-.00020	323.20000	.10102	.02148	.10441	.41424
2.499	5.466	.10670	.12940	.11840	.12000	-.00580	323.20000	.09669	.02171	.10773	.84016
2.499	7.504	.17150	.13860	.11510	.18820	-.00580	323.20000	.09339	.02171	.11171	1.23696
2.499	9.529	.23520	.15170	.11070	.25710	-.00900	323.20000	.08950	.02120	.13783	1.55025
2.499	12.580	.30660	.18070	.10430	.36200	-.01040	323.20000	.08316	.02114	.16001	1.85011
2.499	15.630	.42540	.22330	.10040	.46990	-.01520	323.20000	.07865	.02175	.20234	1.90548
2.499	18.690	.52710	.27950	.09580	.58890	-.02070	323.20000	.07368	.02217	.25351	1.88630
2.499	21.740	.62540	.34750	.09120	.70360	-.02790	323.20000	.06806	.02314	.32606	1.79933
2.499	24.800	.72110	.42750	.08570	.83390	-.03580	323.20000	.06202	.02368	.40608	1.68636
2.499	27.340	.80240	.50510	.08010	.94470	-.04440	323.20000	.05722	.02288	.48470	1.58881
GRADIENT	.02537	-.00052	-.00125	.02756	.02756	-.00111	.00000	-.00140	.00015	-.00067	.20023

RUN NO. 408/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.001	-1.609	-0.4980	.11520	.11460	-.05110	-.00450	290.80000	.10051	.01409	.10105	-.43321
3.001	-1.149	-0.4510	.11340	.11330	-.04540	-.00630	290.80000	.09968	.01362	.09980	-.39770
3.001	1.360	-.01280	.11000	.11030	-.01020	-.00620	290.80000	.09605	.01425	.09578	-.11647
3.001	3.347	.03610	.11050	.10820	.04260	-.00440	290.80000	.09420	.01400	.09655	.32631
3.001	5.412	.08520	.11220	.10360	.09540	-.00570	290.80000	.08893	.01467	.09753	.75982
3.001	7.440	.13710	.11970	.10020	.15130	-.00350	290.80000	.08579	.01441	.10466	1.15220
3.001	9.460	.19500	.13030	.09640	.21380	-.00650	290.80000	.08224	.01416	.11626	1.49773
3.001	12.500	.28300	.15620	.09120	.31010	-.00900	290.80000	.07759	.01361	.14286	1.81235
3.001	15.550	.37150	.19480	.08610	.41020	-.01000	290.80000	.07384	.01426	.18110	1.90703
3.001	18.590	.46600	.24580	.08440	.52000	-.01550	290.80000	.06993	.01447	.23206	1.89593
3.001	21.630	.55960	.30830	.08030	.63380	-.02010	290.80000	.06380	.01650	.29294	1.81519
3.001	24.690	.65230	.38340	.07590	.75280	-.02820	290.80000	.06022	.01568	.36316	1.70124
3.001	27.730	.73080	.45770	.07250	.85930	-.03260	290.80000	.05625	.01625	.44320	1.59707
GRADIENT	.02191	-.00114	-.00158	.02385	.02385	.00017	.00000	-.00162	.00004	-.00115	.19418

ARC 87-747 (455C B C M F 18 V NOM. RV/L

REL 004) (11 APR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3510 IN.  
LEEF = 14.7440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
AILRON = 5.000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = 5.000 ELEV-R = -5.000

PARAMETRIC DATA

RUN NO. 409/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CM	CLMFD	B	CAF	CAB	CDF	L/D
3.498	-8.54	-.04920	.10490	.10420	-.05070	-.01170	254.70000	.09425	.00995	.09499	-.46826
3.498	-3.90	-.05000	.10320	.10280	-.05070	-.00890	254.70000	.09406	.00874	.09440	-.48475
3.498	1.122	-.01610	.09920	.09950	-.01410	-.01190	254.70000	.09122	.00828	.09093	-.16174
3.498	3.132	.02050	.09670	.09540	.02560	-.00960	254.70000	.08676	.00864	.08604	.21258
3.498	5.152	.06920	.09870	.09210	.07780	-.00820	254.70000	.08256	.00954	.08921	.70117
3.498	7.170	.11260	.10290	.08810	.12460	-.00720	254.70000	.07890	.00920	.09384	1.09389
3.498	9.197	.16260	.11270	.08520	.17850	-.00660	254.70000	.07586	.00934	.10342	1.44350
3.498	12.230	.24910	.13820	.08230	.27270	-.00550	254.70000	.07199	.01331	.12813	1.80229
3.498	15.270	.33600	.17330	.07870	.36980	-.00820	254.70000	.06833	.01037	.16331	1.93877
3.498	18.320	.42390	.22030	.07590	.47160	-.01030	254.70000	.06572	.01018	.21063	1.92403
3.498	21.340	.50830	.27630	.07240	.57400	-.01430	254.70000	.06157	.01083	.26623	1.83956
3.498	24.360	.60480	.34960	.06880	.69520	-.02000	254.70000	.05904	.00976	.34074	1.72983
GRADIENT	.51848	-.06203	-.06218	.02019	.00018	.00000	.00000	-.00193	-.00024	-.00179	.18091

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TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F M V NOM. RN/L

(RELOADS) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 26.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0305 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
 AIRLON = 5.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -5.000 ELEV-R = -15.000

RUN NO. 416/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	COF	L/D
2.499	-0.566	-0.08240	.13170	.13090	-.06370	.02610	325.20000	.11147	.01943	.11230	-.62558
2.499	-.056	-.07240	.12970	.12960	-.07250	.02340	325.20000	.11030	.01930	.11037	-.55812
2.499	1.462	-.03030	.12650	.12720	-.02710	.02230	325.20000	.10784	.01936	.10711	-.23988
2.499	3.418	.02250	.12560	.12410	.02990	.01830	325.20000	.10399	.02211	.10558	-.17864
2.499	5.457	.07120	.12700	.11970	.08300	.01590	325.20000	.09892	.02068	.10636	.56124
2.499	7.487	.13880	.13460	.11530	.15510	.01330	325.20000	.09401	.02129	.11342	1.03142
2.499	9.514	.20470	.14600	.11010	.22690	.01160	325.20000	.08904	.02106	.12517	1.40258
2.499	12.590	.30000	.17230	.10280	.33040	.01100	325.20000	.08214	.02066	.15218	1.74096
2.499	15.840	.40410	.21580	.09890	.44730	.00360	325.20000	.07735	.02155	.19308	1.87222
2.499	18.670	.49940	.26800	.09410	.55890	.00150	325.20000	.07200	.02210	.24713	1.86288
2.499	21.750	.59140	.33150	.08870	.67220	-.00260	325.20000	.06503	.02367	.30949	1.78438
2.499	24.790	.69290	.41120	.08270	.80150	-.00940	325.20000	.05692	.02378	.38956	1.68546
2.499	.76930	.76930	.48410	.07660	.90570	-.01300	325.20000	.05350	.02310	.46362	1.58894
GRADIENT	.02667	-.00148	-.00167	-.00167	.02885	-.00175	.00000	-.00185	.00018	-.00163	.20500

RUN NO. 417/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	COF	L/D
3.002	-.611	-.07400	.11790	.11710	-.07530	.00670	291.40000	.10307	.01403	.10386	-.62807
3.002	-.144	-.06380	.11650	.11630	-.06410	.00600	291.40000	.10304	.01326	.10321	-.54788
3.002	1.366	-.03070	.11260	.11330	-.02800	.00720	291.40000	.10035	.01295	.09965	-.27258
3.002	3.360	.00880	.11110	.11540	.01530	.00980	291.40000	.09742	.01298	.09815	.07923
3.002	5.389	.06190	.11050	.10420	.07200	.00640	291.40000	.09041	.01379	.09677	.56013
3.002	7.425	.11620	.11660	.10060	.13030	.00930	291.40000	.08639	.01421	.10251	.99667
3.002	9.472	.17280	.12660	.09640	.19130	.00680	291.40000	.08121	.01519	.11159	1.36550
3.002	12.480	.25890	.15090	.09140	.28540	.00590	291.40000	.07776	.01364	.13759	1.71557
3.002	15.540	.34740	.18740	.08740	.38490	.00530	291.40000	.07270	.01470	.17316	1.85462
3.002	18.600	.43580	.23440	.08320	.48780	.00410	291.40000	.06906	.01414	.22104	1.85881
3.002	21.620	.52550	.29290	.07880	.59690	.00000	291.40000	.06222	.01658	.27762	1.79330
3.002	24.690	.62340	.36830	.07430	.72030	-.00180	291.40000	.05966	.01464	.35508	1.69230
3.002	.69770	.69770	.43750	.06980	.82060	-.00650	291.40000	.05334	.01626	.42309	1.59464
GRADIENT	.02088	-.00172	-.00170	-.00170	.02284	-.00027	.00000	-.00149	-.00021	-.00149	.17859

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## TABULATED SOURCE DATA - 0A33C

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ARC 87-747 0A33C B C M F W V NOM. RN/L

(REL003) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
 AILRON = 5.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -5.000 ELEV-R = -15.000

RUN NO. 418/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
3.498	-0.858	-0.07830	.10730	.10610	-.07990	-.00330	256.90000	.09843	.00767	.09962	-.72985
3.498	-0.390	-0.07310	.10570	.10520	-.07380	-.00160	256.90000	.09725	.00795	.09775	-.69142
3.498	1.134	-0.03990	.10100	.10180	-.03790	-.00080	256.90000	.09375	.00805	.09298	-.55050
3.498	3.122	-0.00460	.09760	.09770	.00070	.00410	256.90000	.08877	.00893	.08867	-.04736
3.498	5.153	.09090	.09810	.09320	.05950	.00200	256.90000	.08359	.00961	.08860	.51839
3.498	7.156	.09180	.10130	.08900	.10370	.00480	256.90000	.07924	.00976	.09154	.90695
3.498	9.186	.14320	.10990	.08560	.15890	.00500	256.90000	.07661	.00899	.10099	1.30334
3.498	12.220	.22640	.13270	.08180	.24940	.00420	256.90000	.07163	.01017	.12280	1.70590
3.498	15.260	.31380	.16630	.07780	.34650	.00460	256.90000	.06959	.00821	.15834	1.88749
3.498	18.280	.38920	.20720	.07470	.43460	.00590	256.90000	.06473	.00997	.19778	1.87813
3.498	21.340	.48010	.26110	.07150	.55180	.00250	256.90170	.06082	.01018	.25745	1.82866
3.498	24.390	.57690	.31110	.06750	.66400	.00430	256.90000	.05711	.01039	.32621	1.71855
3.498	26.920	.65000	.40190	.06400	.76150	-.00030	256.90000	.05394	.01006	.39286	1.61762
GRADIENT	.01899	-.00244	-.00212	-.00212	.02072	.00171	-.00000	-.00242	.00029	-.00273	.17616

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TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C M F M V NOM. RN/L

(RELO06) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 7.500  
 AILRON = -7.500 BDFAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = 15.000

RUN NO. 506/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CD	L/D
2.499	-1.609	-.02970	.13200	.13160	-.03110	-.01050	318.20000	.11131	.02029	.11163	-.22513
2.499	.130	-.01240	.13070	.13070	-.01210	-.01260	318.20000	.11032	.02038	.11029	-.09486
2.499	1.142	.01510	.13000	.12960	.01770	-.01490	318.20000	.10893	.02067	.10926	.11632
2.499	3.166	.06420	.13140	.12760	.07140	-.01700	318.20000	.10661	.02099	.11039	.48911
2.499	5.193	.12440	.13660	.12480	.13620	-.02330	318.20000	.10296	.02184	.11487	.91018
2.499	7.225	.18370	.14590	.12160	.20050	-.02620	318.20000	.09945	.02215	.12387	1.25892
2.499	9.254	.24900	.16000	.11780	.27150	-.02730	318.20000	.09605	.02175	.13846	1.55710
2.499	12.303	.34250	.18980	.11250	.37510	-.03330	318.20000	.09123	.02127	.16904	1.80442
2.499	15.360	.44540	.23600	.10960	.49200	-.03730	318.20000	.08744	.02216	.21464	1.88721
2.499	18.410	.54570	.29330	.10600	.61040	-.04720	318.20000	.08376	.02224	.27225	1.86019
2.499	21.460	.63930	.36130	.10230	.72710	-.05280	318.20000	.07914	.02316	.33967	1.76975
2.499	24.520	.73870	.44310	.09840	.85670	-.06390	318.20000	.07445	.02395	.42327	1.65954
2.499	27.430	.82820	.53490	.09320	.98150	-.07260	318.20000	.07072	.02248	.51491	1.54847
GRADIENT		.02501	-.00008	-.00105	.02729	-.00167	.00000	-.00124	.00019	-.00026	.19341

RUN NO. 507/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CD	L/D
3.000	-.661	-.03300	.11700	.11660	-.03440	-.01590	285.50000	.10290	.01370	.10329	-.28253
3.000	.089	-.02490	.11540	.11550	-.02470	-.01700	285.50000	.10141	.01409	.10137	-.21949
3.000	1.098	.00190	.11410	.11400	.00410	-.01710	285.50000	.09957	.01443	.09963	.01679
3.000	3.119	.04780	.11320	.11040	.05390	-.01700	285.50000	.09449	.01591	.09729	.42249
3.000	5.141	.09810	.11740	.10810	.10830	-.01930	285.50000	.09302	.01504	.10235	.83648
3.000	7.161	.15110	.12440	.10460	.16550	-.02210	285.50000	.08964	.01496	.10958	1.21505
3.000	9.188	.20560	.13640	.10180	.22480	-.02410	285.50000	.08727	.01453	.12204	1.50790
3.000	12.230	.29460	.16430	.09820	.32270	-.02820	285.50000	.08271	.01549	.14919	1.79257
3.000	15.270	.39120	.20650	.09600	.43180	-.03120	285.50000	.08115	.01505	.19201	1.89429
3.000	18.320	.48210	.25770	.09320	.53870	-.03570	285.50000	.07796	.01524	.24333	1.87004
3.000	21.480	.57790	.30420	.09090	.67280	-.04020	285.50000	.07530	.01560	.38967	1.92707
3.000	24.410	.66780	.39950	.08790	.77330	-.04520	285.50000	.07240	.01550	.58550	1.67122
3.000	27.280	.75280	.48440	.08540	.89110	-.05690	285.50000	.06972	.01568	.87039	1.55442
GRADIENT		.02212	-.00095	-.00165	.02410	-.00022	.00000	-.00223	.00098	-.00153	.19330

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TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C H F W V NOM. RV/L

(REL006) ( 11 APR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = 7.500  
 AILRON = -7.500 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = 15.000

PARAMETRIC DATA

RUN NO. 508/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.496	-0.873	-0.04130	.10500	.10430	-.04290	-.02150	249.10000	.09527	.00903	.09592	-.39361
3.496	-1.159	-.03360	.10430	.10420	-.03390	-.01790	249.10000	.09565	.00855	.09574	-.32227
3.496	.852	-.01230	.10250	.10270	-.01080	-.01520	249.10000	.09421	.00849	.09404	-.12022
3.496	2.866	.03030	.10110	.09940	.03330	-.01860	249.10000	.09065	.00875	.09230	.29974
3.496	4.876	.07410	.10270	.09600	.08260	-.02020	249.10000	.08714	.00886	.09385	.72211
3.496	6.900	.12400	.10860	.09290	.13610	-.01790	249.10000	.08477	.00813	.10050	1.14161
3.496	8.923	.17750	.11930	.09040	.19380	-.02180	249.10000	.08203	.00837	.11110	1.48647
3.496	11.950	.23490	.14390	.08800	.27920	-.02520	249.10000	.07925	.00875	.13535	1.77152
3.496	14.990	.34640	.18180	.08600	.38160	-.02680	249.10000	.07711	.00889	.17319	1.90550
3.496	18.030	.43600	.22960	.08340	.49560	-.03140	249.10000	.07343	.00997	.22012	1.89866
3.496	21.060	.52220	.28920	.08220	.59120	-.03740	249.10000	.07251	.00969	.28011	1.80586
3.496	24.110	.61550	.36390	.08080	.71050	-.04230	249.10000	.07108	.00972	.35511	1.69105
3.496	26.980	.69510	.44300	.07950	.82050	-.04770	249.10000	.06990	.00960	.43454	1.56883
GRADIENT	.02053	-.00046	-.00151	-.00151	.02229	.00003	.00000	-.00152	.00001	-.00047	.19902



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TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F W V HIGH RN/L

(RELOAD) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 AIRLON = .000 BDFLAP = 16.300  
 SPCBRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 424/ 0 RN/L = 3.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/C
2.498	-0.617	-0.0660	.13620	.13610	-0.00810	-0.04060	843.50000	.11205	.02405	.11213	-0.04871
2.498	-0.150	.00620	.13570	.13570	.00590	-0.04250	843.50000	.11180	.02390	.11179	.04610
2.498	1.409	.05020	.13620	.13490	.03350	-0.04820	843.50000	.11035	.02455	.11164	.36840
2.498	3.475	.10730	.14010	.13330	.11560	-0.05140	843.50000	.10927	.02403	.11608	.76615
2.498	5.550	.16610	.14840	.13170	.17970	-0.05610	843.50000	.10723	.02447	.12410	1.11894
2.498	7.625	.22920	.16120	.12930	.24860	-0.06090	843.50000	.10451	.02479	.13657	1.42262
2.498	9.704	.29470	.17840	.12620	.32060	-0.06580	843.50000	.10175	.02445	.15434	1.65182
2.498	12.840	.39990	.21670	.12240	.43810	-0.07450	843.50000	.09681	.02359	.19370	1.84563
2.498	15.970	.50700	.27140	.12140	.56210	-0.08850	843.50000	.09671	.02469	.24763	1.86833
2.498	19.110	.61000	.33800	.11970	.68700	-0.10010	843.50000	.09508	.02462	.31475	1.85451
2.498	22.250	.71320	.41970	.11830	.81900	-0.11480	843.50000	.09265	.02565	.39587	1.69975
2.498	25.410	.81590	.51650	.11650	.95860	-0.13050	843.50000	.09028	.02622	.49287	1.57945
2.498	28.530	.89530	.60610	.11430	1.07500	-0.14360	843.50000	.08827	.02603	.58309	1.47704
2.498	GRADIENT	.02787	.00099	-0.00067	.03025	-0.00257	.00000	-0.00070	.00003	.00097	.19941

RUN NO. 430/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/C
3.001	-0.551	-0.0370	.12130	.12100	-0.02510	-0.03950	614.60000	.10337	.01763	.10365	-0.19562
3.000	-0.178	.01210	.12050	.12050	-0.01250	-0.04020	614.60000	.10347	.01703	.10351	-0.10060
3.000	1.354	.02310	.11970	.11910	.02590	-0.04040	614.60000	.10175	.01735	.10233	.19284
3.000	3.393	.07210	.12160	.11710	.07920	-0.04250	614.60000	.09974	.01736	.10425	.59327
3.000	5.443	.12390	.12670	.11440	.13540	-0.04590	614.60000	.09697	.01743	.10937	.97799
3.000	7.493	.18320	.13700	.11190	.19950	-0.05040	614.60000	.09407	.01783	.11928	1.33764
3.000	9.552	.24340	.15270	.11020	.26540	-0.05400	614.60000	.09265	.01755	.13541	1.59406
3.000	12.640	.33720	.18690	.10860	.36990	-0.06420	614.60000	.09061	.01799	.16935	1.80391
3.000	15.730	.43760	.23580	.10840	.48510	-0.07490	614.60000	.09022	.01818	.21835	1.85516
3.000	18.930	.52790	.32910	.10760	.70070	-0.06500	614.60000	.08959	.01801	.31206	1.90794
3.000	21.930	.63630	.37190	.10740	.78290	-0.10130	614.60000	.08937	.01803	.35524	1.71071
3.000	25.030	.73410	.46120	.10730	.86030	-0.11550	614.60000	.08875	.01855	.44440	1.59170
3.000	27.610	.81120	.54500	.10690	.97140	-0.12830	614.60000	.08867	.01823	.52877	1.48872
3.000	GRADIENT	.02362	.00011	-0.00096	.02572	-0.00068	.00000	-0.00095	-0.00000	.00011	.19467

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TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C H F M V HIGH RN/L

(REL007) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 AILRON = .000 BOFLAP = 16.300  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 429/ 0 RN/L = 2.47 GRADIENT INTERVAL = -5.00/ 5.70

MACH	ALPHA	CL	CD	CA	CN	CLM/LD	q	CAF	CAB	CDF	L/D
3.498	-0.878	-0.03170	.11110	.11060	-.03340	-.03630	388.50000	.09913	.01147	.09963	-1.28534
3.498	-0.409	-.02680	.11010	.10990	-.02750	-.03600	388.50000	.09892	.01098	.09911	-1.24265
3.498	1.108	.00600	.10830	.10810	.00810	-.03660	388.50000	.09758	.01052	.09772	-.05551
3.498	3.134	.04940	.10860	.10580	.05530	-.03730	388.50000	.09476	.01104	.09764	.45491
3.498	5.160	.09780	.11230	.10310	.10750	-.03910	388.50000	.09221	.01089	.10151	.87042
3.498	7.191	.15190	.12100	.10110	.16590	-.04340	388.50000	.08977	.01133	.10983	1.25496
3.498	9.222	.20610	.13450	.09970	.22500	-.04830	388.50000	.08847	.01123	.12338	1.53279
3.498	12.270	.29710	.16610	.09920	.32560	-.05740	388.50000	.08797	.01123	.15516	1.78824
3.498	15.330	.38740	.20930	.09940	.42890	-.06780	388.50000	.08769	.01171	.19796	1.85114
3.498	18.390	.48600	.26610	.09920	.54510	-.08120	388.50000	.08828	.01092	.25574	1.82623
3.498	21.450	.56320	.33630	.09970	.66580	-.09450	388.50000	.08765	.01205	.32505	1.73440
3.498	24.520	.67860	.42060	.10100	.79200	-.10600	388.50000	.08957	.01143	.41018	1.61363
3.498	27.070	.75790	.50160	.10170	.90310	-.11800	388.50000	.08966	.01204	.49082	1.51111
GRADIENT	.02066	-.00060	-.00060	-.00118	.02254	-.00029	-.00000	-.00110	-.00009	-.00050	.18867

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ARC 87-747 Q433C B C H F W V NOM. RM/L

REFERENCE DATA

9007 : 2.4210 90.FT. 1000P = 32.3010 IN.  
1007 : 16.2440 IN. 1000P = .0000 IN.  
9007 : 28.1004 IN. 2000P = 11.2500 IN.  
SCALE : .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
AILRON = .000 BOFLAP = 16.300  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 0/ 0 RM/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	ON	CLAMPD	CAF	CAB	QDF	L/D
2.498	-1.970	-0.0010	.13910	.13910	-.00150	-.04130	.11711	.02199	.11711	-.00083
2.498	-1.112	.00310	.13670	.13670	.00280	-.04230	.11735	.02135	.11735	.02214
2.498	1.412	.04630	.13900	.13780	.04970	-.04320	.11623	.02157	.11742	.33306
2.498	3.435	.10700	.14300	.13640	.11540	-.05260	.11464	.02176	.12134	.74803
2.498	5.468	.16500	.15100	.13460	.17860	-.05590	.11251	.02209	.12901	1.09249
2.498	7.490	.22360	.16310	.13250	.24300	-.06170	.10937	.02313	.14011	1.37173
2.498	9.524	.28650	.18020	.12990	.31430	-.06860	.10766	.02224	.15818	1.60162
2.498	12.570	.36940	.21630	.12630	.42720	-.07610	.10465	.02165	.19511	1.80107
2.498	15.620	.49360	.26600	.12610	.54760	-.08950	.10339	.02271	.24707	1.83340
2.498	18.680	.59830	.33460	.12530	.67420	-.10260	.10279	.02251	.31331	1.76368
2.498	21.730	.70050	.41270	.12410	.80350	-.11870	.10095	.02315	.39126	1.69699
2.498	24.790	.80420	.50700	.12310	.94260	-.13780	.09904	.02406	.48514	1.58610
2.498	27.340	.86660	.59470	.12110	1.06100	-.15070	.09747	.02363	.57387	1.49089
GRADIENT	.02756	.00100	-.00066	-.00066	.03000	-.00269	-.00000	.00000	.00102	.19297

RUN NO. 0/ 0 RM/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	ON	CLAMPD	CAF	CAB	QDF	L/D
3.001	-0.613	-.02450	.12360	.12360	-.02580	-.03720	.10836	.01524	.10863	-.19780
3.001	-1.154	-.01620	.12310	.12310	-.01860	-.03780	.10873	.01437	.10878	-.14835
3.001	1.358	.01620	.12220	.12180	.01910	-.03680	.10703	.01477	.10745	.13262
3.001	3.362	.06620	.12360	.11940	.07540	-.04020	.10442	.01498	.10869	.55180
3.001	5.402	.11680	.12840	.11680	.12840	-.04310	.10078	.01602	.11242	.91014
3.001	7.432	.17620	.13670	.11450	.19460	-.04750	.09926	.01524	.12359	1.28437
3.001	9.452	.23050	.15280	.11290	.25240	-.05280	.09712	.01578	.13725	1.50790
3.001	12.300	.32720	.18660	.11130	.35980	-.06400	.09518	.01612	.17080	1.75398
3.001	15.530	.42120	.23250	.11120	.46810	-.07510	.09471	.01572	.21733	1.81200
3.001	18.590	.52270	.29230	.11080	.58880	-.08900	.09423	.01589	.27732	1.78768
3.001	21.630	.62570	.36720	.11070	.71700	-.10320	.09459	.01641	.35195	1.70400
3.001	24.680	.72730	.45670	.11130	.85180	-.11860	.09459	.01671	.44153	1.59253
3.001	27.230	.80530	.53940	.11120	.96290	-.13440	.09457	.01663	.52467	1.45279
GRADIENT	.02353	-.00003	-.00003	-.00104	.02567	-.00073	-.00106	.00000	-.00000	.19045

ARC 87-747 QAS3C B C M F VA V NOM. RV/L

(RELAD8) ( 06 SEP 74 )

## REFERENCE DATA

BREF = 2.4210 90.FT. 1000P = 32.3010 IN.  
 LREF = 14.2440 IN. 1400P = .0000 IN.  
 BREF = 26.1104 IN. 2400P = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 ATURON = .000 BOFLAP = 16.300  
 SPDRBK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 0/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	CL	CD	CA	ON	CLMFO	Q	CAF	CAB	COF	L/D
3.494	-1.000	-0.03590	.11080	.11030	-0.03750	-0.03510	253.40000	.09952	.01078	.10008	-.32332
3.494	-1.396	-0.03140	.11100	.11080	-0.03210	-0.03740	253.40000	.10292	.00788	.10314	-.28223
3.494	1.110	-0.00230	.10920	.10910	-0.00020	-0.03630	253.40000	.10035	.00875	.10033	-.02121
3.494	3.135	.04630	.10920	.10650	.05220	-0.03620	253.40000	.09802	.00848	.10072	.42399
3.494	5.148	.09610	.11260	.10350	.10580	-0.03890	253.40000	.09420	.00930	.10331	.85353
3.494	7.173	.14580	.12060	.10140	.15970	-0.04360	253.40000	.09174	.00966	.11096	1.21939
3.494	9.193	.19850	.13360	.10020	.21730	-0.04700	253.40000	.09101	.00919	.12456	1.48546
3.494	12.220	.29000	.16530	.10020	.31850	-0.05570	253.40000	.09031	.00989	.15568	1.75436
3.494	15.280	.36150	.20770	.10000	.42270	-0.06840	253.40000	.09034	.00966	.19841	1.83642
3.494	18.300	.47870	.26360	.10000	.53730	-0.08040	253.40000	.08993	.01007	.25409	1.81576
3.494	21.340	.57100	.33090	.10050	.65230	-0.09330	253.40000	.09039	.01011	.32157	1.72518
3.494	24.380	.67290	.41660	.10180	.78480	-0.10770	253.40000	.09166	.01014	.40745	1.61467
GRADIENT		.02091	-.00048	-.00104	.02278	-.00004	.00000	-.00074	-.00030	-.00019	.18996

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## TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F W V LOW RNVL

(RELOADS) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4215 SQ.FT. WREF = 32.3010 IN.  
 LREF = 14.2440 IN. WREF = .0000 IN.  
 BREF = 28.1004 IN. WREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 AIRLON = .000 BDFLAP = 16.300  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 422/ 0 RNVL = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDP	L/D
2.498	-0.555	-0.0050	.13960	.13960	-.00180	-.03350	133.00000	.12280	.01680	.12281	-.00321
2.498	-0.595	-.01260	.09350	.09350	-.01280	-.03610	133.00000	.07915	.01435	.07917	-.13321
2.498	1.414	.04040	.14040	.13930	.04380	-.04310	133.00000	.12433	.01497	.12538	.28751
2.498	3.422	.09430	.14180	.13590	.10260	-.04400	133.00000	.11927	.01663	.12518	.66514
2.498	5.431	.14870	.15020	.13540	.16220	-.05450	133.00000	.11833	.01707	.13315	.99009
2.498	7.444	.21140	.16230	.13360	.23060	-.05980	133.00000	.11711	.01649	.14600	1.30180
2.498	9.462	.28090	.17860	.13000	.30650	-.06250	133.00000	.11471	.01529	.16354	1.57296
2.498	12.495	.37670	.21210	.12560	.41360	-.07180	133.00000	.11007	.01553	.19692	1.77650
2.498	15.510	.48800	.26540	.12530	.54120	-.08550	133.00000	.10853	.01677	.24930	1.83828
2.498	18.520	.58350	.32620	.12390	.65690	-.10030	133.00000	.10807	.01583	.31112	1.78920
2.498	21.340	.68810	.40430	.12340	.78850	-.11430	133.00000	.10705	.01635	.38908	1.75210
2.498	24.570	.80100	.50110	.12260	.93680	-.14050	133.00000	.10636	.01624	.48625	1.59872
2.498	27.090	.87020	.57980	.12500	1.03900	-.15350	133.00000	.10264	.01736	.58453	1.50567
2.498	GRADIENT	.02634	.06603	.00453	.02875	-.00264	.00000	.00436	.00018	.00585	.19129

RUN NO. 425/ 0 RNVL = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDP	L/D
3.001	-0.595	-.04260	.12310	.12260	-.04390	-.02860	120.60000	.11516	.00744	.11561	-.34640
3.001	-1.137	-.02850	.12070	.12070	-.02870	-.03060	120.60000	.11460	.00610	.11466	-.23526
3.001	1.367	-.01040	.12020	.12040	-.00750	-.03240	120.60000	.11316	.00724	.11295	-.08628
3.001	3.373	.04290	.12050	.11770	.04990	-.03380	120.60000	.10944	.00826	.11218	.35612
3.001	5.384	.10260	.12470	.11450	.11380	-.03830	120.60000	.10609	.00841	.11630	.62239
3.001	7.393	.14960	.13150	.11110	.16530	-.04030	120.60000	.10466	.00644	.12506	1.13834
3.001	9.406	.21370	.14610	.10920	.23470	-.05020	120.60000	.09995	.00925	.13696	1.46280
3.001	12.420	.31240	.17990	.10850	.34370	-.05390	120.60000	.09560	.01290	.16728	1.73623
3.001	15.440	.41440	.22500	.10660	.45930	-.06950	120.60000	.09865	.00795	.21737	1.84127
3.001	18.470	.51310	.28400	.10690	.57660	-.08210	120.60000	.09593	.01097	.27366	1.80604
3.001	21.480	.61100	.35560	.10720	.69880	-.10000	120.60000	.09815	.00985	.34721	1.71637
3.001	23.550	.67420	.40980	.10700	.78170	-.11460	120.60000	.09805	.00895	.40162	1.64558
3.001	27.020	.79610	.52790	.10860	.94900	-.13450	120.60000	.09857	.01003	.51894	1.50857
3.001	GRADIENT	.02066	-.00047	-.00107	.02274	-.00119	.00000	-.00142	.00035	-.00084	.17017

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## TABULATED SOURCE DATA - QAS5C

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ARC 87-747 QAS5C B C M F W V LOW RWL

(REL093) ( 11 APR 74 )

## REFERENCE DATA

SEEF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2900 IN.  
 SCALE = .0000 SCALE

BETA = .000 ELEVON = 15.000  
 AIRRON = .000 BDFLAP = 16.300  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

## PARAMETRIC DATA

RUN NO. 427/ 0 RWL = .74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
3.496	-0.840	-0.0660	.11330	.11250	-0.0830	-0.02960	103.30000	.11198	.00032	.1282	-1.49976
3.496	-0.367	-0.08550	.11370	.11310	-0.0630	-0.02200	103.30000	.11360	-0.00050	.11418	-1.75241
3.496	1.126	-0.02440	.11010	.11060	-0.0230	-0.02360	103.30000	.11114	-0.00054	.11068	-1.22216
3.496	3.126	.02350	.10610	.10670	.02940	-0.02810	103.30000	.10478	.00192	.10622	.21765
3.496	5.135	.03700	.10900	.10350	.06650	-0.02970	103.30000	.10352	-0.00002	.10906	.52248
3.496	7.150	.11335	.11580	.10080	.12680	-0.03120	103.30000	.10014	.00066	.11515	.97314
3.496	9.150	.17100	.12770	.09880	.18920	-0.03780	103.30000	.09808	.00072	.12691	1.34045
3.496	12.170	.25370	.15460	.09760	.28060	-0.03970	103.30000	.09558	.00202	.15258	1.64155
3.496	15.180	.34170	.19480	.09860	.38070	-0.05770	103.30000	.09636	.00224	.19269	1.75316
3.496	18.200	.44360	.25060	.09950	.49960	-0.06950	103.30000	.09726	.00224	.24844	1.77512
3.496	21.210	.55010	.31950	.09880	.62840	-0.08970	103.30000	.09681	.00199	.31760	1.72196
3.496	24.240	.65140	.40290	.09990	.75940	-0.10790	103.30000	.10057	-0.00067	.40348	1.61687
3.496	26.750	.72970	.48280	.10280	.86890	-0.11280	103.30000	.10057	.00223	.48090	1.51099
GRADIENT		.02443	-.00145	-.00158	.02635	-.00030	.00050	-.00200	.00043	-.00187	.21769

ARC 87-747 QAS3C B C M F M V NOM. RNVL

(REL010) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 26.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AIRLON = .000 BCLAP = 16.300  
 SPDGRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 372/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.499	-0.564	-0.03600	.13020	.12980	-.03730	-.00730	327.20000	.10814	.02166	.10850	-.27674
2.499	-0.133	-0.02070	.12850	.12860	-.02040	-.01030	327.20000	.10779	.02081	.10774	-.16101
2.499	1.406	.01300	.12700	.12670	.01610	-.01230	327.20000	.10536	.02134	.10572	.10221
2.499	3.416	.06790	.12890	.12460	.07540	-.01650	327.20000	.10353	.02107	.10784	.32643
2.499	5.475	.12670	.13460	.12190	.13900	-.02100	327.20000	.10062	.02126	.11342	.94153
2.499	7.505	.19140	.14460	.11840	.20870	-.02720	327.20000	.09708	.02132	.12351	1.32357
2.499	9.536	.25120	.15610	.11430	.27390	-.02880	327.20000	.09280	.02150	.13690	1.58877
2.499	12.570	.34980	.19950	.10880	.38270	-.03480	327.20000	.08785	.02095	.16953	1.84636
2.499	15.610	.45630	.23740	.10590	.50340	-.04240	327.20000	.08501	.02089	.21734	1.92180
2.499	18.690	.55700	.29620	.10210	.62260	-.05390	327.20000	.07870	.02340	.27406	1.88049
2.499	21.740	.65500	.36880	.09990	.74500	-.06160	327.20000	.07674	.02316	.34722	1.77634
2.499	24.780	.75450	.43390	.09580	.87530	-.07530	327.20000	.07216	.02364	.43239	1.66257
2.499	27.420	.83390	.53510	.09090	.98670	-.08490	327.20000	.06737	.02353	.51412	1.55865
GRADIENT	.02633	-.00026	-.00129	-.00129	.02854	-.00218	.00000	-.00122	-.00007		.20380

RUN NO. 371/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.002	-0.608	-0.04060	.11570	.11530	-.04180	-.01540	287.30000	.10184	.01346	.10228	-.35057
3.002	-0.146	-0.03710	.11400	.11390	-.03740	-.01470	287.30000	.10104	.01286	.10253	-.32553
3.002	.085	-.02630	.11350	.11350	-.02610	-.01700	287.30000	.10022	.01328	.10018	-.23152
3.002	1.359	.00300	.11210	.11200	.00560	-.01560	287.30000	.09870	.01330	.09881	.02625
3.002	3.375	.04840	.11250	.10950	.03490	-.01590	287.30000	.09626	.01324	.09932	.42973
3.002	5.444	.09640	.11460	.10490	.10680	-.01910	287.30000	.09394	.01396	.10066	.84119
3.002	7.431	.15350	.12310	.10230	.16810	-.02170	287.30000	.08778	.01452	.10878	1.24378
3.002	9.463	.21120	.13630	.09970	.23080	-.02290	287.30000	.08328	.01442	.12207	1.55014
3.002	12.490	.29720	.16350	.09540	.32560	-.02930	287.30000	.08074	.01466	.14925	1.81746
3.002	15.560	.39580	.20730	.09350	.43690	-.03330	287.30000	.07868	.01482	.19299	1.90961
3.002	18.580	.48840	.25490	.08980	.54590	-.04420	287.30000	.07472	.01508	.24464	1.88643
3.002	21.640	.58470	.32610	.08780	.66370	-.05130	287.30000	.07214	.01546	.31181	1.79231
3.002	24.680	.67970	.40520	.08440	.78680	-.06270	287.30000	.06825	.01615	.39055	1.67734
3.002	27.270	.75890	.48360	.08220	.89510	-.07090	287.30000	.06721	.01499	.47032	1.56901
GRADIENT	.02305	-.00067	-.00136	-.00136	.02498	-.00009	.00000	-.00136	-.00001	-.00066	.20281

ARC 87-747 QASXC B C N F M V NOM. RNVL

(RELOAD) ( 11 APR 74 )

## REFERENCE DATA

REF = 2.4210 50.FT. MREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 RREF = 20.1004 IN. ZREF = 11.2900 IN.  
 SCALE = .0000 SCALE

BETA = .000 ELEVON = .000  
 AILRON = .000 BCFAP = 16.300  
 SPOROK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 373/0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	CL	CD	CA	CN	CLMFD	CAF	CAB	CDF	L/D
3.498	-0.850	-0.3490	.10440	.10380	-.03650	-.02180	.09462	.00918	.09516	-.33506
3.498	-3.80	-0.3420	.10320	.10300	-.03490	-.02050	.09664	.00636	.09586	-.33146
3.498	1.105	-.00230	.10190	.10190	-.00030	-.01860	.09606	.00364	.09604	-.02223
3.498	3.155	.03410	.09920	.09720	.03950	-.01750	.09506	.00714	.09210	.34556
3.498	5.149	.06250	.10590	.09310	.09120	-.01870	.08589	.00721	.09373	.81734
3.498	7.157	.13420	.10820	.09080	.14670	-.01730	.08324	.00736	.10087	1.24127
3.498	9.194	.18180	.11780	.08720	.19110	-.02110	.07961	.00759	.11027	1.54394
3.498	12.240	.27190	.14670	.08370	.29680	-.02280	.07773	.00797	.13889	1.85364
3.498	15.260	.35840	.18380	.08300	.39410	-.02940	.07532	.00768	.17639	1.94972
3.498	18.290	.44590	.23130	.07370	.49600	-.03740	.07121	.00849	.22327	1.92767
3.498	21.320	.54070	.29500	.07830	.61100	-.04380	.06907	.00923	.28649	1.83243
3.498	24.400	.63520	.37190	.07630	.73210	-.05120	.06775	.00855	.36413	1.70783
3.498	26.930	.70960	.44490	.07520	.83420	-.05830	.06590	.00990	.43603	1.59531
GRADIENT	.01605	-.00123	-.00123	-.00160	.01980	.00114	-.00131	-.00029	-.00092	.17765



DATE 15 JUL 74

## TABULATED SOURCE DATA - QASXC

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ARC 87-747 QASXC B C N F M V NOM. RN/L

(REL011) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT.    ZMRP = 32.3010 IN.  
 LREF = 14.2440 IN.    YMRP = .0000 IN.  
 BREF = 28.1004 IN.    ZMRP = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000    ELEVON = .000  
 ALLRON = .000    BDFLAP = -11.700  
 SPDRK = .000    RUDDER = .000  
 ELEV-L = .000    ELEV-R = .000

RUN NO. 395/0    RN/L = 1.74    GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CDF	L/D
2.500	-1.566	-.05520	.12870	.12810	-.03650	.00430	321.90000	.10791	.02019	.10846	-.42931
2.500	-1.102	-.04420	.12690	.12680	-.04450	.00290	321.90000	.10704	.01976	.10712	-.34896
2.500	1.416	-.06610	.12440	.12450	-.00300	.00040	321.90000	.10407	.02043	.10397	-.54884
2.500	3.438	-.05140	.12520	.12190	-.05880	.00260	321.90000	.10115	.02075	.10449	.41039
2.500	5.467	.10830	.12910	.11825	.12010	-.00760	321.90000	.09717	.02103	.10817	.83880
2.500	7.496	.16840	.13740	.11420	.18490	-.01000	321.90000	.09178	.02242	.11512	1.22626
2.500	9.531	.23230	.14960	.10910	.23390	-.01130	321.90000	.08783	.02127	.12665	1.55265
2.500	12.570	.32650	.17870	.10340	.35760	-.01340	321.90000	.08287	.02120	.15871	1.82675
2.500	15.630	.43130	.22390	.09550	.47570	-.02210	321.90000	.07308	.02202	.20357	1.92558
2.500	18.680	.52110	.27760	.09510	.58540	-.03010	321.90000	.06573	.02437	.25672	1.88809
2.500	21.740	.62570	.34650	.09010	.70950	-.03940	321.90000	.06131	.02339	.32385	1.60573
2.500	24.800	.72630	.42690	.08470	.83920	-.04330	321.90000	.05664	.02286	.40766	1.69338
2.500	27.840	.80260	.50450	.07950	.94460	-.04330	321.90000	.05664	.02286	.48414	1.59100
2.500	GRADIENT	.02665	-.00081	-.00150	.02882	-.00167	.00000	-.00170	.00020	-.00098	.21039

RUN NO. 399/0    RN/L = 1.74    GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CDF	L/D
3.002	-1.612	-.05760	.11450	.11390	-.05900	-.07950	289.30000	.17032	.01338	.10114	-.50452
3.002	-1.156	-.05130	.11340	.11320	-.05160	-.00840	289.30000	.10047	.01273	.10061	-.45256
3.002	.081	-.04730	.11280	.11290	-.04720	-.00720	289.30000	.09910	.01380	.09903	-.41974
3.002	1.361	-.01590	.11000	.11040	-.01330	-.00840	289.30000	.09655	.01255	.09621	-.14464
3.002	3.362	.02930	.10960	.0770	.03370	-.00700	289.30000	.09376	.01394	.09570	.26715
3.002	5.403	.07790	.11160	.0370	.02210	-.00600	289.30000	.08959	.01411	.09749	.69878
3.002	7.432	.13550	.11820	.0970	.14970	-.00570	289.30000	.08554	.01416	.10418	1.14650
3.002	9.468	.18840	.12890	.09620	.20700	-.00570	289.30000	.08183	.01437	.11477	1.46080
3.002	12.500	.27660	.15490	.09130	.30350	-.00720	289.30000	.07707	.01423	.14594	1.78617
3.002	15.540	.36530	.19240	.08750	.40350	-.01310	289.30000	.07244	.01506	.17789	1.89865
3.002	18.580	.44250	.23660	.08330	.49480	-.01700	289.30000	.06863	.01467	.22271	1.86999
3.002	21.611	.53410	.30310	.07930	.57260	-.02220	289.30000	.06375	.01555	.29061	1.81663
3.002	24.680	.63100	.38280	.07600	.75130	-.02690	289.30000	.05981	.01519	.36896	1.70063
3.002	27.730	.72750	.45530	.07190	.85520	-.03240	289.30000	.05742	.01448	.44236	1.59811
3.002	GRADIENT	.02239	-.00123	-.00158	.02430	.00000	.00000	-.00178	.00019	-.00141	.19889

(REL011) ( 11 APR 74 )

ARC 87-747 Q433C B C N F M V NON. RN/L

PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

REFERENCE DATA

SEEF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2900 IN.  
 SCALE = .0300 SCALE

RUN NO. 403/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CL/FD	Q	CAF	CAB	CDF	L/D
3.498	-8.58	-.03700	.10360	.10280	-.03860	-.01300	254.80000	.09547	.00733	.09634	-.55037
3.498	-4.00	-.05290	.10250	.10210	-.03360	-.01290	254.80000	.09354	.00856	.09391	-.51611
3.498	1.115	-.01920	.09920	.09950	-.01730	-.01110	254.80000	.09084	.00866	.09048	-.19399
3.498	3.131	.02170	.09620	.09480	.02690	-.01130	254.80000	.08722	.00750	.08856	.22555
3.498	5.148	.06550	.09390	.09170	.07400	-.00790	254.80000	.08284	.00886	.08915	.66830
3.498	6.165	.08590	.09860	.08880	.09600	-.00760	254.80000	.07943	.00937	.08928	.87132
3.498	9.198	.16600	.11280	.08480	.18190	-.00690	254.80000	.07513	.00967	.10324	1.47187
3.498	12.230	.24640	.13600	.08070	.26960	-.00870	254.80000	.07160	.00910	.12709	1.81193
3.498	15.260	.33840	.17330	.07810	.37210	-.01050	254.80000	.06806	.01004	.16359	1.95302
3.498	18.300	.42030	.21720	.07420	.46730	-.01200	254.80000	.06427	.00993	.20775	1.93561
3.498	21.350	.51100	.27630	.07130	.57650	-.01760	254.80000	.06146	.00984	.26713	1.84943
3.498	24.380	.60300	.34800	.06800	.69290	-.02120	254.80000	.05793	.01007	.33878	1.73310
3.498	26.920	.67780	.41840	.06610	.79380	-.02280	254.80000	.05634	.00976	.40962	1.62040
3.498	GRADIENT	.02027	-.00185	-.00201	.02197	.00048	.00000	-.00197	-.00003	-.00184	.19998

TABULATED SOURCE DATA - QAS5C

DATE 15 JUL 74

(REL012) ( 11 APR 74 )

ARC 87-747 QAS5C B C M F W V NOM. RN/L

PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

RUN NO. 396/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
2.500	-4.654	-.03190	.12740	.12750	-.03160	-.00130	323.30000	.10546	.02204	.10546	-.24784
2.500	-2.669	-.03790	.12770	.12780	-.03760	.00070	323.30000	.10704	.02076	.10704	-.29421
2.500	-.685	-.04010	.12730	.12730	-.03980	.00110	323.30000	.10642	.02088	.10642	-.31265
2.500	.302	-.03800	.12640	.12650	-.03780	.00090	323.30000	.10649	.02001	.10649	-.29881
2.500	1.325	-.03770	.12700	.12710	-.03740	.00330	323.30000	.10668	.02712	.10668	-.29426
2.500	3.360	-.03870	.12750	.12760	-.03850	.00250	323.30000	.10697	.02063	.10697	-.30172
2.500	5.432	-.03910	.12720	.12730	-.03890	-.00160	323.30000	.10705	.02025	.10705	-.30358
2.500	7.116	-.03710	.12680	.12690	-.03690	-.00330	323.30000	.10561	.02129	.10561	-.29578
GRADIENT	-.00067	-.00004	-.00004	-.00004	-.00068	.00049	-.00000	.00013	-.00017	.00013	-.00341

RUN NO. 400/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
3.002	-4.629	-.04080	.11340	.11350	-.04080	-.01150	289.30000	.09860	.01490	.09860	-.35947
3.002	-2.620	-.04250	.11400	.11400	-.04240	-.00690	289.30000	.09928	.01472	.09928	-.37193
3.002	-.606	-.04720	.11280	.11280	-.04700	-.00880	289.30000	.09955	.01325	.09955	-.41667
3.002	.397	-.04450	.11240	.11250	-.04430	-.00910	289.30000	.09945	.01305	.09945	-.39378
3.002	1.438	-.04360	.11270	.11280	-.04340	-.00600	289.30000	.09941	.01339	.09941	-.38475
3.002	3.521	-.04750	.11270	.11280	-.04730	-.00880	289.30000	.09951	.01329	.09951	-.41933
3.002	5.810	-.04710	.11300	.11310	-.04690	-.00910	289.30000	.09909	.01401	.09909	-.41468
3.002	7.325	-.04880	.11370	.11380	-.04860	-.00870	289.30000	.10005	.01375	.10005	-.42707
GRADIENT	-.00070	-.00014	-.00014	-.00014	-.00068	.00029	-.00000	.00010	-.00023	.00010	-.00644

RUN NO. 404/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
3.498	-4.830	-.04120	.10410	.10400	-.04150	-.01650	254.90000	.09543	.00857	.09543	-.39904
3.498	-2.761	-.04570	.10250	.10250	-.04600	-.01460	254.90000	.09337	.00893	.09337	-.44966
3.498	-.690	-.04340	.10210	.10200	-.04370	-.01320	254.90000	.09314	.00882	.09314	-.42843
3.498	.351	-.05740	.10180	.10160	-.04370	-.01340	254.90000	.09267	.00893	.09267	-.56791
3.498	1.427	-.05250	.10220	.10210	-.04280	-.01070	254.90000	.09402	.00808	.09402	-.51714
3.498	3.572	-.04770	.10210	.10200	-.04600	-.01150	254.90000	.09337	.00863	.09337	-.47059
3.498	5.717	-.04820	.10210	.10200	-.04850	-.01130	254.90000	.09321	.00879	.09321	-.47549
3.498	7.488	-.04780	.10280	.10270	-.04820	-.01500	254.90000	.09336	.00934	.09336	-.46933
GRADIENT	-.00113	-.00021	-.00021	-.00021	-.00113	.00065	-.00000	-.00018	-.00003	-.00018	-.01197

DATE 15 JUL 74

TABULATED SOURCE DATA - 0153C

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ARC 87-747 0153C B C M F W V NOM. RN/L

(REL013) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.24-J IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 397/0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
2.500	-4.737	.26590	.16000	.11010	.29010	-.01420	323.30000	.08729	.02281	.13634	1.67865
2.500	-2.722	.26210	.15850	.10930	.28610	-.01270	323.30000	.09801	.02129	.13635	1.67031
2.500	-.708	.25340	.15630	.10860	.27720	-.01050	323.30000	.08693	.02167	.13375	1.61685
2.500	.295	.25670	.15690	.10860	.28060	-.00950	323.30000	.08751	.02109	.13491	1.65394
2.500	1.308	.25460	.15610	.10820	.27840	-.01190	323.30000	.08676	.02144	.13378	1.64369
2.500	3.325	.25750	.15740	.10900	.28140	-.01170	323.30000	.08817	.02083	.13569	1.65290
2.500	5.346	.26330	.15910	.10960	.28740	-.01500	323.30000	.08739	.02221	.13597	1.61258
2.500	7.358	.26720	.16020	.11000	.29140	-.01410	323.30000	.08850	.02150	.13776	1.68547
2.500	9.380	.27130	.15950	.10860	.29540	-.02100	323.30000	.08594	.02266	.13593	1.71019
GRADIENT		-.00122	-.00038	-.00017	-.00126	.00034	-.00000	.00003	-.00020	-.00019	-.00363

RUN NO. 401/0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
3.002	-4.737	.22680	.13750	.09540	.24740	-.01280	289.50000	.08075	.01465	.12248	1.65856
3.002	-2.674	.22340	.13690	.09530	.24410	-.00940	289.50000	.08110	.01420	.12226	1.64301
3.002	-.617	.21950	.13530	.09440	.23950	-.00890	289.50000	.07931	.01509	.11969	1.6108
3.002	.396	.21440	.13370	.09370	.23470	-.00900	289.50000	.07944	.01426	.11899	1.61513
3.002	1.417	.21310	.13350	.09370	.23340	-.00910	289.50000	.07850	.01520	.11784	1.60624
3.002	3.468	.22140	.13610	.09460	.24200	-.01190	289.50000	.07954	.01556	.12035	1.64142
3.002	5.516	.21850	.13630	.09530	.23920	-.01260	289.50000	.08000	.01530	.12032	1.61769
3.002	7.561	.22600	.13730	.09450	.24690	-.01540	289.50000	.07910	.01580	.12078	1.66263
3.002	9.612	.22910	.13760	.09460	.24990	-.01850	289.50000	.07815	.01645	.12036	1.68190
GRADIENT		-.00114	-.00034	-.00017	-.00116	.00013	.00000	-.00025	.00008	-.00045	-.00373

RUN NO. 405/0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
3.498	-4.918	.19360	.12080	.08560	.21160	-.01170	254.80000	.07573	.00987	.11132	1.59877
3.498	-2.817	.17920	.11800	.08530	.19680	-.01010	254.80000	.07564	.00966	.10866	1.51465
3.498	-.686	.18620	.11780	.08300	.20370	-.00640	254.80000	.07450	.00940	.10874	1.57661
3.498	.354	.18750	.11810	.08470	.20500	-.00640	254.80000	.07433	.00967	.10980	1.58237
3.498	1.406	.18710	.11820	.08410	.20470	-.00690	254.80000	.07460	.00950	.10901	1.57970
3.498	3.521	.18990	.11980	.08520	.20770	-.00780	254.80000	.07566	.00934	.11077	1.58151
3.498	5.630	.19260	.11960	.08450	.21040	-.01400	254.80000	.07462	.00928	.11002	1.61774
3.498	7.745	.19030	.11840	.08360	.20780	-.01570	254.80000	.07367	.01013	.10864	1.60265
3.498	9.856	.18850	.11730	.08300	.20590	-.01660	254.80000	.07286	.01041	.10751	1.60015
GRADIENT		.00003	-.00010	-.00011	.00001	.00055	.00000	-.00005	-.00005	-.00005	-.00169

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## TABULATED SOURCE DATA - 0433C

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ARC 87-747 0433C B C M F W V NOM. RNVL

(REL014) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 SREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0350 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 398/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.500	-4.733	.59810	.32000	.09110	.67220	-.03390	325.10000	.06804	.02306	.29384	1.93327
2.500	-2.725	.58700	.31650	.09160	.66560	-.02710	325.10000	.06916	.02244	.29093	1.88912
2.500	-.724	.58320	.31630	.09260	.65700	-.02520	325.10000	.07001	.02259	.29050	1.87894
2.500	.286	.58210	.31550	.09230	.65560	-.02650	325.10000	.06928	.02302	.28933	1.87963
2.500	1.299	.58270	.31630	.09270	.65640	-.02530	325.10000	.06973	.02297	.29003	1.87769
2.500	3.321	.58720	.31750	.09240	.66110	-.02930	325.10000	.05980	.02260	.29170	1.88417
2.500	5.346	.59080	.31880	.09230	.66490	-.03100	325.10000	.05827	.02343	.29212	1.88842
2.500	7.368	.59190	.31780	.09150	.66560	-.03640	325.10000	.05706	.02394	.29066	1.89786
2.500	9.401	.59190	.31790	.09130	.66530	-.03420	325.10000	.06724	.02456	.29073	1.89555
GRADIENT	-.00138	-.00029	-.00038	.00018	-.00140	.00057	-.00000	.00020	-.00001	-.00029	-.00055

RUN NO. 402/ 0 RNVL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.002	-4.712	.52420	.27890	.07980	.58840	-.02620	289.50000	.06465	.01515	.26200	1.93283
3.002	-2.663	.51770	.27780	.08080	.58250	-.02110	289.50000	.06628	.01452	.26133	1.88836
3.002	-.643	.51370	.27590	.08020	.57750	-.01880	289.50000	.06428	.01592	.25792	1.88817
3.002	.377	.52270	.27970	.08050	.58730	-.02190	289.50000	.06552	.01498	.26244	1.89529
3.002	1.408	.52070	.27970	.08110	.58550	-.02020	289.50000	.06538	.01572	.26169	1.88978
3.002	3.466	.52440	.28170	.08140	.58970	-.02230	289.50000	.06563	.01577	.26336	1.89193
3.002	5.524	.52580	.28200	.08110	.59110	-.02470	289.50000	.06545	.01565	.26367	1.89568
3.002	7.579	.52680	.28210	.08070	.59210	-.02680	289.50000	.06479	.01591	.26339	1.89978
3.002	9.624	.52680	.28270	.08120	.59230	-.02880	289.50000	.06502	.01618	.26368	1.89617
GRADIENT	.00022	.00038	.00038	.00017	.00035	.00042	.00000	.00006	.00011	.00017	-.00090

RUN NO. 406/ 0 RNVL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.496	-4.922	.47900	.25280	.07340	.53560	-.01850	254.70000	.06344	.00996	.24314	1.89755
3.496	-2.815	.47560	.25060	.07240	.53270	-.01980	254.70000	.06256	.00984	.24598	1.90152
3.496	-.714	.47430	.25100	.07310	.53170	-.01580	254.70000	.06290	.01020	.24096	1.89441
3.496	.336	.47430	.24980	.07280	.53130	-.01690	254.70000	.06216	.00984	.24012	1.90331
3.496	1.402	.47140	.24960	.07280	.52840	-.01360	254.70000	.06289	.01011	.23963	1.89310
3.496	3.516	.47690	.25160	.07270	.53430	-.01880	254.70000	.06282	.00988	.24177	1.90082
3.496	5.635	.47490	.25160	.07290	.53220	-.02060	254.70000	.06264	.00988	.24089	1.89669
3.496	7.755	.47070	.25050	.07390	.52800	-.01900	254.70000	.06395	.00995	.24068	1.88330
3.496	9.873	.46780	.24960	.07410	.52510	-.02030	254.70000	.06350	.01080	.23926	1.87817
GRADIENT	-.00041	-.00018	-.00018	-.00044	-.00044	.00027	-.00000	-.00007	.00000	-.00081	.00002

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TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F M V LOW RN/L

(RELO15) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. YMRP = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEV-N = .000  
 AIRLON = .000 BDFLAP = .000  
 SPDGRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 380/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.499	-.531	-.03350	.12790	.12740	-.03480	.00320	138.50000	.11226	.01314	.11279	-4.1880
2.499	-.111	-.03130	.12760	.12750	-.03160	.00800	138.50000	.11262	.01488	.11272	-4.0245
2.499	1.438	-.01070	.12380	.12410	-.00760	.00120	138.50000	.10841	.01569	.10818	-.08683
2.499	3.417	.04060	.12480	.12220	.04800	.00310	138.50000	.10644	.01576	.10911	.32546
2.499	5.414	.08800	.12700	.11810	.09950	.00040	138.50000	.10203	.01607	.11097	.69244
2.499	7.437	.13520	.13530	.11400	.17140	-.00260	138.50000	.09795	.01605	.11936	1.14692
2.499	9.457	.22340	.14740	.10870	.24460	-.01190	138.50000	.09206	.01664	.13100	1.51556
2.499	12.490	.30960	.17380	.10270	.33980	-.01050	138.50000	.08606	.01664	.15751	1.78149
2.499	15.510	.41540	.21810	.09910	.45860	-.01760	138.50000	.08110	.01800	.20078	1.95442
2.499	18.550	.52260	.27570	.09510	.58320	-.02780	138.50000	.07733	.01777	.25875	1.89575
2.499	21.545	.62540	.34430	.09050	.70810	-.03460	138.50000	.07030	.02035	.32537	1.81664
2.499	24.570	.71070	.41940	.08580	.82080	-.04390	138.50000	.06658	.01322	.40185	1.69512
2.499	27.150	.80000	.49970	.07970	.93990	-.05380	138.50000	.05996	.01974	.48225	1.60053
GRADIENT	.02450	-.00289	-.00142	-.00142	.02669	-.00069	.00000	-.00163	.00021	-.00108	.11366

RUN NO. 377/ 0 RN/L = .76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.001	-.598	-.06310	.11460	.11390	-.06430	-.00860	122.60000	.10657	.00733	.10723	-5.5055
3.001	-.112	-.06190	.11290	.11280	-.06210	-.00410	122.60000	.10559	.00721	.10571	-5.4759
3.001	1.338	-.02490	.11000	.11060	-.02230	-.00410	122.60000	.10270	.00790	.10214	-.22442
3.001	3.378	.01530	.10760	.10660	.02160	-.00390	122.60000	.09824	.00836	.09935	.14190
3.001	5.380	.06030	.10720	.10110	.07010	-.00340	122.60000	.09300	.00810	.09916	.56247
3.001	7.397	.11250	.11250	.09710	.12600	-.00390	122.60000	.08904	.00806	.10452	.69344
3.001	9.395	.17200	.12220	.09240	.18970	-.00740	122.60000	.08387	.00853	.11371	1.40896
3.001	12.420	.24930	.14630	.08930	.27490	-.00760	122.60000	.08177	.00753	.12698	1.70236
3.001	15.460	.34080	.16360	.08150	.37740	-.01070	122.60000	.07764	.00846	.17544	1.85531
3.001	18.490	.45030	.23660	.08190	.50200	-.02520	122.60000	.07317	.00873	.22829	1.50343
3.001	21.480	.54140	.29890	.07990	.61320	-.02590	122.60000	.07135	.00855	.28193	1.61121
3.001	24.510	.63660	.37200	.07440	.73350	-.03630	122.60000	.06589	.01185	.35424	1.71117
3.001	27.040	.72030	.44850	.07200	.84550	-.04250	122.60000	.06347	.00853	.44030	1.60511
GRADIENT	.02069	-.00170	-.00180	-.00180	.02257	-.00080	.00000	-.00209	.00029	-.00196	.16321

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TABULATED SOURCE DATA - 0A53C

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ARC 87-747 0A53C B C M F W V LOW RN/L

(REL015) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
 ALLRON = .000 BDFLAP = .000  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 374/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
3.498	-0.835	-0.04690	.10370	.10300	-.04840	-.01080	98.64000	.10299	.00001	.10368	-.45224
3.498	-0.376	-0.03370	.10310	.10270	-.03440	-.00730	98.64000	.10450	-.00180	.10486	-.52133
3.498	1.121	-.04170	.09830	.09910	-.03980	-.00490	98.64000	.10373	-.00463	.10294	-.42452
3.498	3.133	.00320	.09460	.09430	.00830	-.00770	98.64000	.09767	-.00337	.09798	.03312
3.498	5.156	.04640	.09400	.08940	.03460	-.00670	98.64000	.09253	-.00313	.09707	.49332
3.498	7.128	.09950	.09830	.08520	.11090	-.00170	98.64000	.08654	-.00134	.09963	1.01188
3.498	9.161	.14790	.10730	.08240	.16310	-.00250	98.64000	.08217	.00023	.10709	1.37818
3.498	12.180	.21910	.12830	.07910	.24130	-.00030	98.64000	.08156	-.00246	.13063	1.70927
3.498	15.180	.31050	.16410	.07710	.34270	-.00590	98.64000	.07806	-.00096	.16508	1.89193
3.498	18.200	.39740	.20780	.07330	.44240	-.01260	98.64000	.07269	.00061	.20723	1.91220
3.498	21.220	.48880	.26530	.07040	.55170	-.01880	98.64000	.07032	.00008	.26524	1.84239
3.498	24.220	.57720	.33300	.06690	.66300	-.03170	98.64000	.06711	-.00021	.33319	1.73331
3.498	26.770	.66730	.40840	.06420	.77970	-.03950	98.64000	.06363	.00057	.40800	1.63332
	GRADIENT	.01339	-.00238	-.00226	.01505	.00057	.00000	-.00147	-.00080	-.00158	.12923

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TABULATED SOURCE DATA - ON53C

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ARC 87-747 ON53C B C H F M V NOM. RN/L

(REL016) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1054 IN. ZREF = 11.2550 IN.  
 SCALE = .0000 SCALE

BETA = .000 ELEVON = .000  
 AIRCON = .000 BDFLAP = .000  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 381/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
2.499	-0.569	-0.05690	.12760	.12760	-.05810	.00130	330.10000	.10722	.01978	.10779	-.44552
2.499	-0.598	-0.04590	.12640	.12630	-.04570	.00030	330.10000	.10579	.02051	.10586	-.35990
2.499	1.432	-0.0360	.12430	.12430	-.00050	-.00090	330.10000	.10342	.02088	.10338	-.02952
2.499	3.477	.00050	.12310	.12310	.00000	-.00050	330.10000	.10000	.02180	.10333	.40375
2.499	5.462	.10760	.12950	.11860	.11940	-.00760	330.10000	.09675	.02185	.10788	.81112
2.499	7.490	.16420	.13720	.11460	.16090	-.01060	330.10000	.09275	.02185	.11550	1.13653
2.499	9.514	.22880	.14390	.11000	.20040	-.01220	330.10000	.08814	.02186	.12831	1.52643
2.499	12.590	.30090	.17520	.10340	.36210	-.01950	330.10000	.08230	.02110	.15925	1.89570
2.499	15.640	.43370	.22470	.09990	.47830	-.02450	330.10000	.07758	.02192	.20366	1.92989
2.499	18.750	.52880	.28090	.09990	.59100	-.02890	330.10000	.07330	.02260	.25338	1.68335
2.499	21.750	.62910	.34980	.09170	.71350	-.03600	330.10000	.06776	.02394	.32748	1.79690
2.499	24.830	.72870	.43260	.08670	.84300	-.04770	330.10000	.06214	.02456	.41039	1.68405
2.499	27.350	.80940	.51020	.08130	.95330	-.05480	330.10000	.05706	.02424	.48865	1.56047
GRADIENT		.02698	-.00059	-.00128	.02883	-.00161	.00000	-.00172	.00044	-.00152	.00131

RUN NO. 378/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
3.001	-0.607	-0.05590	.11440	.11380	-.05710	-.00740	289.70000	.09974	.01406	.10034	-.48156
3.001	-1.148	-0.05270	.11280	.11260	-.05300	-.00590	289.70000	.09999	.01261	.10013	-.46154
3.001	1.345	-0.01800	.10930	.10970	-.01540	-.00780	289.70000	.09657	.01113	.09618	-.18440
3.001	3.394	.02630	.10890	.10720	.03270	-.00600	289.70000	.09441	.01279	.09618	.24137
3.001	5.406	.08000	.11140	.10340	.06010	-.00580	289.70000	.09033	.01307	.09842	.71757
3.001	7.431	.13050	.11750	.09910	.11460	-.00890	289.70000	.08536	.01374	.10335	1.11627
3.001	9.456	.18950	.12890	.09600	.20810	-.00770	289.70000	.08290	.01340	.11557	1.47031
3.001	12.480	.27750	.15480	.09120	.30440	-.01140	289.70000	.07759	.01361	.14153	1.73234
3.001	15.550	.37090	.19470	.08810	.40950	-.01520	289.70000	.07369	.01441	.16177	1.91540
3.001	18.590	.46620	.24600	.08450	.52040	-.02040	289.70000	.06934	.01516	.22162	1.83563
3.001	21.640	.56000	.30830	.08100	.63430	-.02640	289.70000	.06454	.01558	.29320	1.61619
3.001	24.690	.65540	.38540	.07640	.75690	-.03360	289.70000	.06028	.01610	.37077	1.71059
3.001	27.290	.73310	.45920	.07290	.88200	-.04370	289.70000	.05590	.01640	.44456	1.59636
GRADIENT		.02120	-.00135	-.00163	.02309	.00012	.00000	-.00145	-.00107	-.00116	.00064



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TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F W V NON. RN/L

(RELD16) ( 11 APR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 20.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
AILRON = .000 BDFLAP = .000  
SFBK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

PARAMETRIC DATA

RUN NO. 375/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CD	L/D
3.498	-0.837	-0.6670	.10440	.10340	-0.06030	-0.01300	246.50000	.09507	.00833	.09608	-0.63927
3.498	-0.397	-0.6220	.10350	.10350	-0.06290	-0.00950	246.50000	.09498	.00802	.09541	-0.60120
3.498	1.121	-0.02760	.09950	.09950	-0.02570	-0.01170	246.50000	.09126	.00824	.09074	-0.27927
3.498	3.132	.01200	.09690	.09610	.01750	-0.00850	246.50000	.08699	.00911	.08781	.12408
3.498	5.154	.06120	.09760	.09170	.06980	-0.00980	246.50000	.08264	.00906	.08858	.62787
3.498	7.165	.11090	.10320	.08860	.12290	-0.00720	246.50000	.07970	.00890	.09441	1.07412
3.498	9.196	.16460	.11330	.08560	.18060	-0.00730	246.50000	.07663	.00897	.10451	1.45198
3.498	12.220	.24460	.13650	.08160	.26800	-0.01060	246.50000	.07261	.00899	.12769	1.79284
3.498	15.270	.32940	.17190	.07910	.36300	-0.00920	246.50000	.07040	.00870	.16352	1.91584
3.498	18.300	.42110	.21870	.07550	.46850	-0.01800	246.50000	.06655	.00895	.21029	1.92475
3.498	21.340	.52490	.27490	.07230	.57030	-0.02110	246.50000	.06276	.00954	.26599	1.83679
3.498	24.390	.62610	.33080	.06920	.66690	-0.02750	246.50000	.05926	.00994	.34175	1.72782
3.498	26.920	.68090	.42110	.06730	.79770	-0.03220	246.50000	.05760	.00970	.41252	1.61646
GRADIENT	.02027		-.00194	-.00189	.02199	.00074	.00000	-.00212	.00022	-.00215	.19655

ARC 87-747 OASXC B C M F W V HIGH RN/L

(REL017) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. WREF = 32.3510 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2900 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AIRLON = .000 BDFLAP = .000  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 382/ 0 RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMAD	Q	CAF	CAB	CDF	L/D
2.499	-0.615	-0.05670	.12590	.12530	-.05810	.00090	839.00000	.10216	.02314	.10278	-.45070
2.499	-1.172	-.04660	.12490	.12480	-.04700	.00000	839.00000	.10174	.02306	.10188	-.37318
2.499	1.408	-.00135	.12280	.12280	.00170	-.00300	839.00000	.09931	.02349	.09932	-.01073
2.499	3.450	.05380	.12420	.12080	.06120	-.00590	839.00000	.09680	.02400	.10031	.43311
2.499	5.553	.11190	.12900	.11760	.12380	-.00980	839.00000	.09313	.02447	.10467	.86678
2.499	7.666	.17430	.13760	.11310	.19110	-.01190	839.00000	.08880	.02430	.11349	1.26692
2.499	9.672	.23740	.15030	.10830	.25930	-.01670	839.00000	.08453	.02377	.12689	1.57937
2.499	12.880	.34180	.18250	.10170	.37380	-.02400	839.00000	.07865	.02305	.16000	1.87283
2.499	16.000	.44400	.22920	.09790	.49000	-.02870	839.00000	.07387	.02403	.20607	1.93757
2.499	19.110	.54370	.28760	.09380	.60790	-.03580	839.00000	.06877	.02503	.26400	1.89013
2.499	22.280	.64110	.35870	.08890	.72920	-.04420	839.00000	.06322	.02568	.33497	1.78703
2.499	25.440	.74180	.44540	.08360	.86120	-.05170	839.00000	.05750	.02610	.42187	1.65530
2.499	28.070	.82090	.52660	.07830	.97210	-.05167	839.00000	.05243	.02587	.50368	1.55915
2.499	GRADIENT	.02743	-.00041	-.00112	.02959	-.00167	.00000	-.00134	.00023	-.00062	.21962

RUN NO. 379/ 0 RN/L = 3.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMAD	Q	CAF	CA3	CDF	L/D
3.001	-0.644	-.05300	.11300	.11240	-.05430	-.00850	599.50000	.09550	.01690	.09611	-.45931
3.001	-1.153	-.04670	.11180	.11170	-.04700	-.00850	599.50000	.09561	.01609	.09574	-.41763
3.001	1.368	-.01060	.10890	.10910	-.00800	-.00920	599.50000	.09290	.01620	.09268	-.09798
3.001	3.445	.03740	.10860	.10620	.04380	-.00880	599.50000	.08961	.01659	.09208	.34375
3.001	5.425	.08640	.11110	.10240	.09650	-.00960	599.50000	.08555	.01685	.09429	.77780
3.001	7.475	.13880	.11760	.09860	.15290	-.00940	599.50000	.08157	.01703	.10077	1.17951
3.001	9.575	.19920	.13000	.09510	.21800	-.01070	599.50000	.07783	.01727	.11371	1.53144
3.001	12.640	.28590	.15780	.09070	.31700	-.01340	599.50000	.07355	.01715	.14114	1.83361
3.001	15.750	.38130	.19840	.08740	.42090	-.01750	599.50000	.07000	.01740	.18162	1.92256
3.001	18.810	.47660	.25080	.08370	.53250	-.02300	599.50000	.06635	.01735	.23434	1.90060
3.001	21.910	.56790	.31490	.08020	.64440	-.02710	599.50000	.06245	.01775	.29839	1.80372
3.001	25.050	.66550	.39320	.07620	.77020	-.03410	599.50000	.05819	.01801	.37882	1.68418
3.001	27.660	.74060	.47030	.07270	.84430	-.03960	599.50000	.05492	.01778	.45452	1.57494
3.001	GRADIENT	.02255	-.00107	-.00153	.02443	-.00010	.00000	-.00152	-.00001	-.00105	.20305

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F M V HIGH RN/L

(REL017) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
 AILRON = .000 BDEFAP = .000  
 SPCBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 376/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
3.498	-0.869	-0.05920	.10410	.10320	-0.06080	-.01150	384.10000	.09304	.01016	.09396	-.56888
3.498	-0.397	-0.05340	.10260	.10220	-0.05410	-.01160	384.10000	.09223	.00997	.09260	-.52051
3.498	1.100	-0.02230	.09910	.09950	-0.02040	-.01110	384.10000	.08934	.01016	.08894	-.22511
3.498	3.121	.01960	.09750	.09610	.02490	-.00870	384.10000	.08560	.01050	.08682	.20173
3.498	5.153	.06540	.09090	.09260	.07400	-.00780	384.10000	.08159	.01101	.08790	.65130
3.498	7.022	.11580	.10470	.08980	.12770	-.00780	384.10000	.07883	.01097	.09381	1.10605
3.498	9.229	.16630	.11380	.08560	.18230	-.01020	384.10000	.07438	.01122	.10266	1.46147
3.498	12.280	.24660	.13780	.08230	.27030	-.00990	384.10000	.07112	.01118	.12689	1.78971
3.498	15.310	.33250	.17340	.07940	.36650	-.01300	384.10000	.06824	.01116	.16259	1.91821
3.498	18.410	.42510	.22190	.07630	.47340	-.01530	384.10000	.06552	.01078	.21167	1.91560
3.498	21.450	.51540	.28110	.07310	.58250	-.02090	384.10000	.06163	.01147	.27037	1.83391
3.498	24.550	.61060	.35990	.07010	.70330	-.02780	384.10000	.05855	.01155	.34547	1.71528
3.498	27.690	.68950	.42630	.06750	.80450	-.03240	384.10000	.05595	.01155	.41595	1.60725
3.498	GRADIENT	.02009	-.00168	-.00177	.02181	.00072	.00000	-.00188	.00011	-.00178	.19677

ARC 07-747 Q453C B C M F M V LOW RN/L

(REL018) ( 11 APR 74 )

## REFERENCE DATA

SECF = 2.4210 50.FT. 100P = 32.3010 IN.  
 LREF = 14.2440 IN. 100P = .0000 IN.  
 BECF = 20.1004 IN. 200P = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AIRLON = .000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -20.000 ELEV-R = -20.000

RUN NO. 386/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMF/D	Q	CAF	CAB	CDP	L/D
2.499	-1.556	-1.0110	.13830	.13750	-.10240	.03220	132.90000	.12135	.01595	.12234	-.75083
2.499	-.099	-1.0340	.13620	.13600	-.10360	.03560	132.90000	.12556	.01244	.12574	-.74803
2.499	1.411	-.05510	.13400	.13350	-.05180	.03420	132.90000	.12230	.01500	.12099	-.41136
2.499	3.419	-.00600	.12950	.12950	.00170	.02450	132.90000	.11608	.01342	.11597	-.04658
2.499	5.435	.05430	.13090	.12300	.06650	.02430	132.90000	.11112	.01408	.11692	.41503
2.499	7.447	.10980	.13600	.12060	.12650	.02430	132.90000	.10339	.01721	.11892	.80750
2.499	9.456	.16070	.14370	.11540	.18210	.02880	132.90000	.09203	.01487	.12908	1.11769
2.499	12.465	.27820	.17170	.10790	.30680	.01770	132.90000	.08746	.01587	.15616	1.60929
2.499	15.500	.36750	.20800	.10230	.40370	.01500	132.90000	.07912	.01484	.19376	1.76657
2.499	18.520	.46490	.25770	.09670	.52270	.01240	132.90000	.07343	.01758	.24105	1.80395
2.499	21.540	.55670	.31770	.09150	.63450	.00890	132.90000	.06444	.01757	.30126	1.75307
2.499	24.570	.65750	.39250	.08380	.76080	.00180	132.90000	.06058	.01936	.37495	1.57382
2.499	27.090	.73290	.46300	.07850	.86340	-.00240	132.90000	.06058	.01792	.44712	1.58276
GRADIENT	.02545	-.00237	-.00208	.02772	.02772	-.00222	.00000	-.00176	-.00032	-.00202	.18278

RUN NO. 389/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMF/D	Q	CAF	CAB	CDP	L/D
3.002	-1.602	-1.0480	.12210	.12100	-.10610	.01780	120.80000	.11389	.00711	.11590	-.85843
3.002	-1.135	-.08860	.11980	.11960	-.08850	.01430	120.80000	.11271	.00689	.11292	-.73967
3.002	1.365	-.01150	.11480	.11650	-.06880	.01490	120.80000	.10961	.00689	.10794	-.62318
3.002	3.377	-.02640	.10890	.11030	-.01990	.01340	120.80000	.10123	.00902	.09993	-.24205
3.002	5.382	.02810	.10930	.10620	.03820	.01420	120.80000	.09746	.00874	.10061	.25679
3.002	7.392	.07740	.11320	.10230	.09130	.01730	120.80000	.09191	.01039	.10290	.68359
3.002	9.404	.14450	.12100	.09570	.16240	.01100	120.80000	.08823	.00747	.11358	1.19538
3.002	11.440	.21510	.17770	.08740	.35100	.00920	120.80000	.07694	.01045	.16761	1.77309
3.002	13.460	.28160	.22250	.08350	.46880	-.00610	120.80000	.07589	.00941	.21305	1.89889
3.002	15.460	.35270	.22260	.08360	.56710	.00840	120.80000	.07261	.01017	.21216	1.80945
3.002	17.480	.49880	.28120	.07950	.67150	.00530	120.80000	.06883	.01017	.27171	1.77395
3.002	19.500	.58290	.34790	.07480	.76470	.00790	120.80000	.06345	.01135	.33753	1.67577
3.002	21.500	.66400	.42070	.07290	.86270	.00730	120.80000	.06176	.01114	.41071	1.57272
3.002	23.500	.73260	.50326	.07264	.96063	.00578	.00000	-.00313	.00049	-.00373	.14631
GRADIENT	.01867	-.00326	-.00264	.02063	.02063	-.00078	.00000	-.00313	.00049	-.00373	.14631

TABULATED SOURCE DATA - 0453C

DATE 15 JUL 74

(RELO16) ( 11 APR 74 )

ARC 87-747 0453C B C N F M V LOW RNVL

PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AIRON = .000 BDFAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -20.000 ELEV-R = -20.000

REFERENCE DATA

SREF = 2.4210 SQ.FT. WREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 26.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0000 SCALE

RUN NO. 394/ 0 RNVL = .75 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	CL	CD	CA	CN	CLMPD	Q	CAF	CAB	CDF	L/O
3.496	-0.841	-0.9910	.11200	.11130	-1.0070	.00370	104.80000	.15988	.00142	.11135	-0.87843
3.498	-0.379	-0.0460	.11100	.11050	-0.0940	.00880	104.80000	.15949	.00101	.11007	-0.79817
3.498	1.123	-0.7410	.10490	.10640	-0.0700	.00350	104.80000	.10480	.00160	.10336	-0.70565
3.498	3.129	-0.2390	.10000	.10120	-0.0180	.00800	104.80000	.09950	.00170	.09835	-0.23886
3.498	5.136	.01370	.09750	.09590	.02240	.00970	104.80000	.09405	.00195	.09568	.14074
3.498	7.151	.07230	.10110	.09130	.08440	.00640	104.80000	.08874	.00256	.09855	.71593
3.498	9.151	.12060	.10830	.08770	.13640	.00790	104.80000	.08325	.00245	.10526	1.11489
3.498	12.170	.19720	.12860	.08440	.21990	.01300	104.80000	.08186	.00254	.12637	1.53056
3.498	15.180	.28150	.15960	.08050	.31350	.00580	104.80000	.07795	.00255	.15732	1.76167
3.498	18.200	.35800	.20000	.07840	.40270	.01250	104.80000	.07564	.00276	.15764	1.78805
3.498	21.210	.43420	.25630	.07460	.51620	.00620	104.80000	.07168	.00292	.25558	1.77235
3.498	24.230	.51560	.31950	.07150	.61950	.00620	104.80000	.06816	.00334	.31640	1.67660
3.498	26.755	.62060	.39050	.06910	.73000	.00470	104.80000	.06641	.00269	.38787	1.59560
GRADIENT	.01827	.01827	-.00325	-.00299	.00057	.00555	.00000	-.00271	.00012	-.00336	-.15497

DATE 13 JUL 74

TABULATED SOURCE DATA - CLASSIC

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ARC 87-747 CLASSIC B C N F M V NON. RNVL

(REL019) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 54. FT. WREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 20.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 ALFCON = .000 BCFAP = -11.700  
 SPDRK = 95.000 RUDDER = .000  
 ELEV-L = -20.000 ELEV-R = -20.000

RUN NO. 367/0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDP	L/D
2.499	-5.74	-11270	14150	14030	-11410	04230	322.00000	12432	.01570	.12566	-79674
2.499	-1.06	-10110	13920	13910	-10130	04170	322.00000	12247	.01663	.12266	-72542
2.499	1.407	-05810	13500	13640	-05480	03710	322.00000	11587	.02053	.11449	-43057
2.499	3.440	-00560	13170	13160	00430	03590	322.00000	11008	.02152	.11014	-02738
2.499	5.482	03760	13270	12660	07000	02950	322.00000	10442	.02210	.11061	43434
2.499	7.490	11780	13710	12060	13460	02470	322.00000	09847	.02213	.11518	85662
2.499	9.528	18400	14000	11550	20990	02510	322.00000	09347	.02203	.12626	124293
2.499	12.540	28110	17410	10870	31220	02290	322.00000	08632	.02238	.15225	1.61429
2.499	15.630	37660	21320	10380	42010	01950	322.00000	08022	.02358	.19044	1.76689
2.499	18.690	47960	26670	09900	53980	01690	322.00000	07436	.02464	.24341	1.79793
2.499	21.740	56910	32580	09190	64930	01190	322.00000	06653	.02537	.30229	1.74638
2.499	24.800	64550	40250	08630	77290	00840	322.00000	06028	.02602	.37892	1.65308
2.499	27.340	74360	47410	07950	87830	00300	322.00000	05416	.02534	.45149	1.56896
GRADIENT		.02734	-.02237	-.02213	.02964	-.00171	.00000	-.00361	.00148	-.00386	.19330

RUN NO. 390/0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDP	L/D
3.002	-6.17	-10270	12510	12390	-10410	01880	290.90000	11078	.01312	.11190	-82198
3.002	-1.56	-09810	11530	12310	-09850	02320	290.90000	11022	.01288	.11049	-79576
3.002	1.364	-06790	11830	11990	-06470	02160	290.90000	10637	.01353	.10479	-57076
3.002	3.364	-01400	11490	11580	-00710	01980	290.90000	10185	.01375	.10125	-12059
3.002	5.400	03500	11400	11020	04550	01840	290.90000	09537	.01483	.09923	30640
3.002	7.425	09120	11780	10500	10560	01650	290.90000	08977	.01523	.10267	77355
3.002	9.451	14650	12680	10100	16530	01790	290.90000	08590	.01510	.11187	1.15539
3.002	12.490	23150	14690	09530	25830	01800	290.90000	07964	.01566	.13362	1.55518
3.002	15.540	33010	18690	09160	36810	01560	290.90000	07545	.01615	.17131	1.76649
3.002	17.570	39010	21630	08840	43720	01370	290.90000	07246	.01594	.20106	1.80338
3.002	18.590	41850	23150	08600	47040	01390	290.90000	06973	.01627	.21606	1.80772
3.002	21.630	50880	29020	08220	57990	01170	290.90000	06572	.01648	.2485	1.75134
3.002	24.690	60180	36250	07790	69820	01160	290.90000	06122	.01668	.34726	1.66058
3.002	27.230	67500	42850	07350	79360	01010	290.90000	05689	.01661	.41371	1.56939
GRADIENT		.02250	-.02234	-.00209	.02437	-.00017	.00000	-.00229	.00020	-.00271	.17732

DATE 15 JUL 74

TABULATED SOURCE DATA - 0433C

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ARC 07-747 0433C B C M F M V NOM. RW/L

(REL019) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMEP = 32.9010 IN.  
 LREF = 14.2440 IN. YMEP = .0000 IN.  
 PREF = 28.1024 IN. ZMEP = 11.2590 IN.  
 SCALE = .0000 SCALE

BETA = .000 ELEVON = -20.000  
 AILRON = .000 BCFAP = -11.700  
 SPOBKA = 55.000 RUDDER = .000  
 ELEV-L = -20.000 ELEV-R = -20.000

## PARAMETRIC DATA

RUN NO. 393/ 0 RW/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	LLMFLD	Q	CAF	CAB	CDF	L/O
3.498	-1.861	-.09510	.11320	.11170	-.09680	.00690	263.10000	.10253	.00917	.10397	-.04063
3.498	-.399	-.08550	.11160	.11110	-.08620	.00970	263.10000	.10232	.00878	.10292	-.76477
3.498	1.111	-.06110	.10580	.10700	-.05900	.00980	263.10000	.09833	.00867	.09717	-.57696
3.498	3.132	-.01550	.10130	.10200	-.01000	.00760	263.10000	.09241	.00959	.09173	-.15358
3.498	5.147	.03310	.10040	.09710	.04200	.00630	263.10000	.08744	.00966	.09066	.32963
3.498	7.172	.08270	.10380	.09270	.09900	.01050	263.10000	.08257	.01013	.09379	.79629
3.498	9.191	.13030	.11130	.08910	.14640	.00960	263.10000	.07865	.01045	.10102	1.17019
3.498	12.230	.21170	.13320	.06340	.23510	.01360	263.10000	.07500	.01040	.12310	1.58837
3.498	15.760	.29680	.16500	.08110	.32970	.01170	263.10000	.07019	.01091	.15449	1.79817
3.498	18.300	.37800	.20700	.07780	.42390	.01390	263.10000	.06720	.01061	.18491	1.82654
3.498	21.340	.46440	.26110	.07420	.52760	.01360	263.10000	.06330	.01090	.21366	1.77668
3.498	24.390	.55510	.32590	.07120	.64180	.01600	263.10000	.06015	.01105	.31981	1.68283
3.498	26.930	.62480	.39410	.06840	.75550	.01410	263.10000	.05710	.01130	.38401	1.58533
3.498	GRADIENT	.01969	-.00501	-.00249	.02148	-.00005	.00000	-.00262	.00013	-.00314	.16965

ARC 87-74 : Q453C B C H F M V HIGH RN/L (REL020) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = -20.000  
 AIRLON = .000 BOFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -20.000 ELEV-R = -20.000

## PARAMETRIC DATA

RUN NO. 388/ 0 RN/L = 3.96 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
2.499	-.626	-.11500	.13760	.13630	-.11650	.04190	843.30000	.11534	.02996	.11661	-.83600
2.499	-.155	-.10550	.13520	.13490	-.10990	.03890	843.30000	.11386	.02104	.11413	-.74375
2.499	1.403	-.05610	.13560	.13190	-.05290	.03600	843.30000	.11075	.02115	.10942	-.42977
2.499	3.468	-.00070	.12800	.12780	.00700	.03170	843.30000	.10590	.02200	.10603	-.00581
2.499	5.544	.05890	.12960	.12330	.07110	.02750	843.30000	.10976	.02254	.10716	.45416
2.499	7.620	.12070	.13550	.11830	.13760	.02560	843.30000	.09540	.02290	.11281	.89075
2.499	9.706	.18590	.14630	.11280	.20790	.02470	843.30000	.09013	.02267	.12389	1.27228
2.499	12.850	.28850	.17490	.10640	.32010	.02260	843.30000	.08363	.02277	.15273	1.54882
2.499	15.980	.38810	.21680	.10160	.43280	.01920	843.30000	.07747	.02413	.19363	1.78995
2.499	19.120	.48630	.27040	.05620	.54800	.01730	843.30000	.07119	.02501	.24676	1.79337
2.499	22.270	.58300	.33590	.08990	.66680	.01340	843.30000	.06427	.02563	.31217	1.73565
2.499	25.420	.67920	.41530	.08350	.79180	.00990	843.30000	.05723	.02627	.39157	1.63570
2.499	28.060	.75600	.48940	.07630	.89730	.00750	843.30000	.05073	.02557	.46685	1.54456
GRADIENT	.02785	-.00228	-.00203	.03009	-.00231	.00001		-.00228	.00025	-.00251	.20296

RUN NO. 391/ 0 RN/L = 3.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
3.002	-.654	-.10180	.12320	.12210	-.10320	.02000	604.70000	.10686	.01524	.10803	-.82582
3.002	-.188	-.09120	.12150	.12120	-.09160	.02020	604.70000	.10590	.01530	.10520	-.75064
3.002	1.347	-.05440	.11670	.11790	-.05170	.01940	604.70000	.10222	.01568	.10097	-.46683
3.002	3.393	-.00670	.11410	.11430	.00010	.01930	604.70000	.09801	.01629	.09785	.05841
3.002	5.437	.04490	.11410	.10930	.05550	.01750	604.70000	.09236	.01694	.09721	.39358
3.002	7.490	.09970	.11850	.10450	.11430	.01690	604.70000	.08745	.01705	.10160	.84132
3.002	9.546	.15640	.12790	.10020	.17540	.01600	604.70000	.08314	.01706	.11107	1.22246
3.002	12.640	.24660	.15240	.09480	.27400	.01700	604.70000	.07734	.01746	.13542	1.61757
3.002	15.730	.33900	.18980	.09080	.37790	.01690	604.70000	.07301	.01779	.17070	1.78006
3.002	18.820	.42990	.27800	.08630	.48370	.01570	604.70000	.06822	.01808	.22061	1.80581
3.002	21.910	.51710	.29630	.08190	.59030	.01430	604.70000	.06344	.01846	.27913	1.74547
3.002	25.030	.61020	.37000	.07710	.70940	.01320	604.70000	.05871	.01839	.35334	1.64337
3.002	27.620	.68270	.43950	.07290	.80860	.01190	604.70000	.05485	.01805	.42347	1.55039
GRADIENT	.02355	-.00225	-.00194	.02558	-.00022	-.00000		-.00220	.00026	-.00251	.19039



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TABULATED SOURCE DATA - ON53C

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ARC 87-747 ON53C B C M F M V HIGH RNL

(REL226) (11 APR 74)

REFERENCE DATA

SPEF = 2.4215 SQ.FT. XMPF = 32.3010 IN.  
LPEF = 14.2445 IN. YMPF = .0000 IN.  
BPEF = 28.1004 IN. ZMPF = 11.2950 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEVON = -20.000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -20.000 ELEV-R = -20.000

PARAMETRIC DATA

RUN NO. 392/ D PN/L = 2.48 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.498	-0.879	-0.09770	.11270	.11120	-0.09950	.00900	396.10000	.10105	.01015	.10256	-0.86753
3.498	-0.411	-0.08630	.11070	.11010	-0.08710	.01070	396.10000	.09954	.01056	.10016	-0.77950
3.498	1.105	-0.06620	.10520	.10630	-0.05410	.01030	396.10000	.09579	.01051	.09473	-0.53346
3.498	3.133	-0.05090	.10130	.10170	-0.03440	.01020	396.10000	.09081	.01089	.09038	-0.19815
3.498	5.163	.03750	.10260	.09680	.04640	.00990	396.10000	.08552	.01128	.08935	.37283
3.498	7.150	.08550	.10390	.09240	.09780	.00930	396.10000	.08072	.01168	.09233	.82247
3.498	9.227	.13790	.11270	.08920	.15420	.01080	396.10000	.07753	.01167	.10126	1.22285
3.498	12.280	.21570	.13420	.08530	.23930	.01220	396.10000	.07306	.01224	.12228	1.60663
3.498	15.340	.29990	.16700	.08170	.33340	.01380	396.10000	.06957	.01213	.15529	1.79598
3.498	18.390	.38770	.21070	.07760	.43430	.01290	396.10000	.06532	.01228	.19899	1.84019
3.498	21.460	.47500	.26550	.07430	.53950	.01340	396.10000	.06172	.01258	.25462	1.78187
3.498	24.530	.56330	.33510	.07090	.65150	.01360	396.10000	.05837	.01253	.32358	1.58146
3.498	27.080	.63170	.39960	.06830	.74430	.01470	396.10000	.05568	.01262	.38841	1.38044
	GRADIENT:	.02143	-.00283	-.00238	.02325	.00014	.00000	-.00252	.00014	-.00299	.18779

ARC 87-747 0453C B C M F W V NOM. RNVL

(RELO21) ( 11 APR 74 )

## REFERENCE DATA

SAEF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2445 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
 AILRON = 10.000 BDFLAP = -11.700  
 SPBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = -20.000

RUN NO. 383/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLFWO	Q	CAF	CAB	CDF	L/D
2.499	-1.567	-0.0410	.13620	.13540	-.06540	.02370	323.80000	.11693	.01847	.11777	-.61697
2.499	-1.106	-0.07880	.11420	.13400	-.07910	.02390	323.80000	.11564	.01836	.11579	-.59781
2.499	1.413	-0.03350	.13080	.13160	-.03030	.02250	323.80000	.11279	.01881	.11201	-.25317
2.499	3.438	.02130	.12920	.12770	.02910	.01670	323.80000	.10806	.01964	.10961	-.16354
2.499	5.465	.07760	.13180	.12380	.08980	.01360	323.80000	.10347	.02033	.11155	.58383
2.499	7.493	.14040	.13900	.11950	.15740	.01080	323.80000	.09891	.02059	.11859	1.01136
2.499	9.527	.20500	.15000	.11400	.22700	.00740	323.80000	.09306	.02094	.12935	1.36268
2.499	12.580	.29700	.17620	.10730	.32830	.00830	323.80000	.08714	.02116	.15655	1.68352
2.499	15.630	.40000	.21870	.10260	.44500	.00270	323.80000	.08162	.02098	.19650	1.83311
2.499	18.690	.49650	.27160	.09830	.55740	-.00040	323.80000	.07630	.02000	.25081	1.82794
2.499	21.740	.59480	.33660	.09240	.67720	-.00730	323.80000	.06923	.02117	.31513	1.76680
2.499	24.800	.69520	.41740	.08730	.80610	-.01280	323.80000	.06409	.02321	.39610	1.66553
2.499	27.840	.77440	.49190	.08130	.91380	-.01890	323.80000	.05840	.02290	.47156	1.57428
2.499	GRADIENT	.02706	-.00168	-.00186	.02634	-.00211	.00000	-.00217	.00331	-.00138	.20154

RUN NO. 384/ 0 RNVL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLFWO	Q	CAF	CAB	CDF	L/D
3.001	-1.612	-0.07650	.12070	.11990	-.07490	.00910	288.00000	.10745	.01245	.10824	-.60593
3.001	-1.149	-0.06680	.11890	.11870	-.06710	.00980	288.00000	.10624	.01246	.10682	-.58166
3.001	1.366	-0.03010	.11450	.11510	-.02740	.00630	288.00000	.10229	.01237	.10161	-.26339
3.001	3.387	.01320	.11260	.11160	.02190	.00580	288.00000	.09833	.01317	.09945	.13177
3.001	5.406	.06240	.11350	.10710	.07280	.00830	288.00000	.09391	.01319	.11111	.54372
3.001	7.433	.11430	.11640	.10260	.12970	.00820	288.00000	.08863	.01337	.14014	.88116
3.001	9.458	.17440	.12970	.09920	.19340	.00770	288.00000	.08464	.01456	.17137	1.24553
3.001	12.500	.26020	.15350	.09360	.28700	.00400	288.00000	.07944	.01416	.21372	1.63421
3.001	15.540	.34410	.18320	.09010	.38220	.00240	288.00000	.07390	.01420	.27312	1.71564
3.001	18.590	.44150	.23890	.08570	.49460	.00260	288.00000	.07138	.01432	.32933	1.64791
3.001	21.630	.53350	.29950	.08170	.60690	-.00120	288.00000	.06669	.01512	.38555	1.70154
3.001	24.680	.62270	.37140	.07740	.72090	-.00500	288.00000	.06212	.01526	.45746	1.67697
3.001	27.720	.69830	.44210	.07360	.82320	-.00930	288.00000	.05855	.01505	.52967	1.59107
3.001	GRADIENT	.02260	-.00201	-.00210	.02457	-.00375	.00000	-.00229	.00319	-.00139	.18337



ARC 87-747 Q433C B C M F W V NOM. RN/L

(REL521) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 PRF = 28.1024 IN. ZMRP = 11.2300 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
 AILRON = 10.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = -20.000

RUN NO. 385/ 5 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMWD	Q	CAF	CAB	CDF	L/D
3.498	-0.89	-0.7775	.10980	.10870	-.07930	-.00030	252.20000	.09988	.00892	.10106	-7.5680
3.498	-0.98	-.06780	.10890	.10850	-.06860	.00130	252.20000	.10112	.00738	.10150	-6.2257
3.498	1.113	-.03820	.10310	.10390	-.03820	.00010	252.20000	.09647	.00743	.09575	-3.7035
3.498	3.137	.00150	.10070	.10050	.00700	.00380	252.20000	.09245	.00805	.09269	.01479
3.498	5.151	.04450	.09940	.09510	.05320	.00350	252.20000	.08687	.00823	.09135	.44674
3.498	7.171	.09440	.10380	.09120	.10660	.00310	252.20000	.08284	.00836	.09550	.90932
3.498	9.189	.14450	.11260	.08510	.16090	.00580	252.20000	.08016	.00794	.10477	1.28286
3.498	12.230	.22750	.13490	.08350	.25990	.00290	252.20000	.07458	.00902	.12624	1.58700
3.498	15.260	.31360	.16860	.08110	.34690	.00190	252.20000	.07044	.00366	.15926	1.86017
3.498	18.300	.40240	.21300	.07590	.44890	.00030	252.20000	.06718	.00872	.20473	1.88293
3.498	21.340	.48760	.26940	.07350	.55220	.00180	252.20000	.06370	.00980	.26528	1.85567
3.498	24.380	.57420	.33760	.07050	.66230	-.00080	252.20000	.05991	.00959	.32886	1.70064
3.498	26.910	.64240	.40180	.06750	.75470	-.00020	252.20000	.05780	.00970	.39311	1.59904
3.498	GRADIENT	.01974	-.00238	-.00217	.02133	.00083	.00000	-.00210	-.00007	-.00231	.17971

DATE 15 JUL 74

TABULATED SOURCE DATA - 0433C

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APC 87-747 0433C B C M F W V NOM. RN/L

(REL522) (11 APR 74)

## REFERENCE DATA

SEEP = 2.4215 SQ.FT. XMP = 32.3010 IN.  
 LSEEP = 14.2440 IN. XMP = .0000 IN.  
 BSEEP = 23.1004 IN. XMP = 11.2000 IN.  
 SCALE = .0000 SCALE

BETA = .000 ELEVON = -20.000  
 AIRLON = 20.000 BOPAB = -11.700  
 SPORV = 55.000 FUDSE = .000  
 ELEV-L = .000 ELEV-B = -40.000

## PARAMETRIC DATA

RUN NO. 513/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFC	Q	CAF	CAB	CCF	L/D
2.498	-1.621	-1.1190	.14790	.14680	-1.11350	.03750	325.50000	.12794	.01966	.12916	-1.75702
2.498	.116	-1.0580	.12270	.12230	-1.05550	.03290	325.50000	.10363	.01227	.10344	-1.70332
2.498	1.133	-1.0670	.14150	.14110	-1.05480	.03180	325.50000	.12163	.02117	.12032	-1.41111
2.498	1.155	-1.0070	.13640	.13710	-1.00580	.02710	325.50000	.11693	.02007	.11679	-1.50330
2.498	5.124	.05020	.13820	.13110	.05210	.02070	325.50000	.11016	.02194	.11033	-1.56359
2.498	7.218	.12930	.14190	.12710	.12580	.01930	325.50000	.10345	.02355	.10342	-1.66682
2.498	9.247	.17290	.15120	.12710	.12490	.01790	325.50000	.10022	.02117	.10005	-1.14370
2.498	12.300	.27010	.17490	.11490	.10140	.01260	325.50000	.09319	.02103	.09583	-1.53294
2.498	15.300	.37130	.21390	.10770	.14160	.00990	325.50000	.08702	.02068	.09166	-1.73223
2.498	18.410	.47150	.26430	.10290	.13100	.00550	325.50000	.08072	.02178	.04423	-1.77339
2.498	21.480	.56840	.32510	.10970	.12490	.00340	325.50000	.07445	.02234	.00674	-1.79300
2.498	24.520	.66400	.40320	.10910	.11710	-.00190	325.50000	.06770	.02360	.00176	-1.84671
2.498	27.400	.75120	.48470	.10810	.10810	-.00590	325.50000	.06218	.02330	.00437	-1.54770
GRADIENT		.02656	-.00062	-.00030	.03048	-.00245	.00000	-.00066	.00036	-.00055	.00186

RUN NO. 512/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFC	Q	CAF	CAB	CCF	L/D
3.001	-1.635	-1.09030	.12840	.12740	-1.09170	.01660	290.20000	.11479	.01261	.11580	-1.70310
3.001	.075	-1.08430	.12560	.12570	-1.08420	.01700	290.20000	.11281	.01289	.11270	-1.67175
3.001	1.086	-1.06290	.12240	.12150	-1.06210	.01800	290.20000	.10987	.01363	.10871	-1.51195
3.001	3.113	-1.01460	.11830	.11880	-1.00820	.01500	290.20000	.10559	.01331	.10498	-1.12912
3.001	5.127	.02970	.11570	.11190	.04000	.01500	290.20000	.10576	.01394	.10233	-1.24435
3.001	7.153	.06890	.12100	.10900	.10380	.01260	290.20000	.10347	.01423	.10683	-1.70111
3.001	9.175	.14350	.12930	.10310	.11820	.01160	290.20000	.10006	.01474	.11528	-1.10476
3.001	12.220	.23300	.15310	.10040	.12610	.01240	290.20000	.08593	.01477	.13875	-1.52080
3.001	15.270	.32530	.18720	.09490	.10310	.00920	290.20000	.07743	.01447	.17322	-1.73735
3.001	18.310	.41290	.21920	.07840	.14680	.00760	290.20000	.06357	.01423	.20312	-1.88344
3.001	21.350	.50450	.28930	.08580	.15720	.00610	290.20000	.07046	.01534	.27503	-1.74270
3.001	24.400	.59520	.35920	.08120	.16950	.00220	290.20000	.06564	.01556	.34572	-1.69726
3.001	27.280	.68060	.43780	.07720	.18050	.00170	290.20000	.06185	.01535	.40115	-1.55440
GRADIENT		.02132	-.00263	-.11025	.02300	-.00045	.00000	-.00245	.00113	-.00269	.00113

TABULATED SOURCE DATA - QAS3C

DATE 15 JUL 74

(REL022) ( 11 APR 74 )

ARC 87-747 QAS3C B C M F W V NOM. RN/L

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
AILRON = 20.000 BDFLAP = -11.700  
SPBRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = -40.000

RUN NO. 511/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MMCH	ALPHA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	COF	L/O
3.496	-0.879	-0.9260	.11710	.11570	-.09440	.00800	249.10000	.10857	.00713	.11001	-.79567
3.496	-1.170	-0.8520	.11450	.11430	-.08550	.00750	249.10000	.10661	.00769	.10686	-.74343
3.496	.838	-.07220	.11020	.11130	-.07060	.00820	249.10000	.10366	.00764	.10261	-.65504
3.496	2.862	-.02450	.10510	.10620	-.01920	.01060	249.10000	.09767	.00853	.09659	-.23289
3.496	4.875	.02170	.10350	.10120	.03040	.01120	249.10000	.09287	.00833	.09512	-.20973
3.496	6.892	.06850	.10620	.09730	.08070	.00910	249.10000	.08837	.00893	.09742	.64396
3.496	8.919	.12140	.11430	.09410	.13760	.00830	249.10000	.08473	.00937	.10504	1.06170
3.496	11.950	.20410	.13500	.08980	.22770	.01120	249.10000	.08024	.00956	.12565	1.51237
3.496	14.520	.27730	.16080	.08610	.30870	.01080	249.10000	.07668	.00942	.15163	1.72479
3.496	14.990	.28710	.16550	.08560	.32020	.01060	249.10000	.07631	.00929	.15653	1.73505
3.496	18.020	.37750	.20840	.08140	.42350	.00970	249.10000	.07211	.00929	.19958	1.81150
3.496	21.060	.46280	.26140	.07760	.52580	.00830	249.10000	.06781	.00979	.23223	1.77071
3.496	24.100	.54480	.32520	.07430	.63010	.00850	249.10000	.06395	.01035	.31567	1.67584
3.496	27.010	.63360	.40290	.07130	.74750	.00730	249.10000	.06097	.01033	.39380	1.57219
GRADIENT		.02040	-.05240	-.00255	.02222	.00074	.00000	-.00276	.00021	-.00263	.17886

TABULATED SOURCE DATA - 0453C

DATE 15 JUL 74

(REL023) ( 11 APR 74 )

ARC 87-747 0453C B C N F M V NOM. RN/L

REFERENCE DATA

SEEF = 2.4210 SQ.FT. XMEP = 32.3010 IN.  
LREF = 14.2440 IN. YMEP = .0000 IN.  
BREF = 28.1004 IN. ZMEP = 11.2500 IN.  
SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -40.000  
AILRON = .000 DEFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -40.000 ELEV-R = -40.000

RUN NO. 523/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFD	CAF	CAB	CDP	L/D
2.499	-1.522	-1.1390	.16820	.16480	-1.1550	.06380	.14346	.01934	.14687	-1.92649
2.499	.181	-1.4030	.16140	.16190	-1.13970	.06240	.14213	.01977	.14169	-1.86841
2.499	1.192	-1.1130	.15600	.15830	-1.1000	.05700	.13792	.02038	.13561	-1.72619
2.499	3.212	-.04970	.14840	.15090	-.10410	.05120	.13338	.02052	.12787	-1.33495
2.499	5.244	.00970	.14420	.14270	.02280	.04390	.12158	.02112	.12315	.06701
2.499	7.279	.06780	.14800	.13820	.08600	.04180	.11473	.02347	.12470	.45814
2.499	9.307	.13770	.15710	.13270	.16120	.03990	.11013	.02257	.13475	.87641
2.499	12.350	.22660	.17820	.12560	.25950	.03900	.10261	.02299	.15574	1.27181
2.499	15.410	.33560	.21260	.11580	.38010	.03490	.09406	.02174	.19168	1.57857
2.499	18.460	.43680	.26150	.10970	.49710	.02970	.08724	.02246	.24516	1.67058
2.499	21.520	.53080	.32030	.10330	.61130	.02890	.07970	.02360	.29039	1.65697
2.499	24.570	.62150	.39040	.09660	.72760	.02520	.07240	.02420	.36838	1.59212
2.499	27.450	.70800	.46960	.09040	.84470	.02280	.06634	.02406	.44826	1.50749
2.499	GRADIENT	.02838	-.00466	-.00370	.03103	-.00330	-.00400	.00000	-.00498	.16245

RUN NO. 524/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFD	CAF	CAB	CDP	L/D
3.001	-.560	-1.1320	.14270	.14140	-1.13960	.03700	.12788	.01352	.12918	-1.92650
3.001	.142	-1.1870	.13920	.13950	-1.1840	.03600	.12641	.01300	.12612	-1.83003
3.001	1.147	-.09660	.13480	.13670	-.09390	.03680	.12279	.01391	.12089	-1.71679
3.001	3.161	-.04650	.12790	.13030	-.03940	.03200	.11622	.01408	.11387	-1.55368
3.001	5.200	.00570	.12420	.12320	.01690	.03070	.10850	.01470	.10959	.04560
3.001	7.219	.03410	.12810	.11900	.07970	.03320	.10465	.01435	.11383	.50061
3.001	9.236	.11500	.13900	.11480	.13320	.03210	.10002	.01478	.12042	.65154
3.001	12.290	.20140	.15570	.10920	.22990	.02880	.09432	.01488	.14109	1.23398
3.001	15.320	.29070	.18550	.10210	.32940	.02860	.08760	.01430	.17171	1.55720
3.001	18.360	.37940	.22780	.09670	.43190	.02760	.08233	.01437	.21418	1.64559
3.001	21.410	.47280	.28390	.09160	.54380	.02840	.07670	.01487	.26355	1.55616
3.001	24.470	.55930	.34980	.08670	.65390	.02860	.07199	.01471	.33638	1.59292
3.001	27.340	.64520	.42570	.08190	.76860	.02710	.06659	.01531	.41215	1.51529
3.001	GRADIENT	.02323	-.00393	-.00293	.02551	-.00129	-.00320	.00021	-.00412	.15363

DATE 15 JUL 74

## TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F M V NOM. RN/L

(REL023) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4215 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -40.000  
 AILRON = .000 BDFLAP = -11.700  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = -40.000 ELEV-R = -40.000

RUN NO. 525/ 0 RN/L = 1.75 GRADIENT INTERVAL = -.5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLAMPD	Q	CAF	CAB	CDF	L/D
3.496	-8.00	-12080	.12920	.12750	-.12260	.02610	250.900000	.11876	.00874	.12046	-.93504
3.496	-1.11	-11150	.12590	.12560	-.11580	.02420	250.900000	.11744	.00816	.11766	-.91839
3.496	.896	-.08970	.12070	.12210	-.08780	.02310	250.900000	.11380	.00830	.11241	-.74307
3.496	2.919	-.05070	.11330	.11370	-.04490	.02550	250.900000	.10765	.00805	.10522	-.44793
3.496	4.949	-.00290	.10950	.10930	.07660	.02350	250.900000	.10004	.00926	.10024	-.02607
3.496	6.961	.03580	.11260	.10560	.06410	.02320	250.900000	.09658	.00902	.10364	.45146
3.496	8.979	.10.10	.11920	.10200	.11850	.02410	250.900000	.09338	.00862	.11073	.84808
3.496	12.010	.17710	.13700	.09710	.20170	.02540	250.900000	.08794	.00916	.12798	1.29308
3.496	15.040	.26330	.16610	.09200	.29740	.02340	250.900000	.08324	.00876	.15756	1.58617
3.496	18.090	.34690	.20480	.08700	.39330	.02570	250.900000	.07715	.00985	.19546	1.69338
3.496	21.120	.43390	.25680	.08300	.49730	.02860	250.900000	.07289	.01011	.24719	1.69122
3.496	24.170	.51950	.31970	.07900	.60490	.02750	250.900000	.06762	.01138	.30937	1.62480
3.496	27.070	.60320	.39290	.07540	.71590	.03110	250.900000	.06556	.00984	.38417	1.53503
	GRADIENT	.02092	-.00347	-.00319	.02288	-.00020	.00000	-.00328	.00009	-.00356	.16129

ARC 87-747 CASSC B C M F M V NOM. RN/L

(REL24) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.    XMRP = 32.3010 IN.  
 LREF = 14.2440 IN.    YMRP = .0000 IN.  
 BREF = 26.1034 IN.    ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000    ELEVON = .000  
 AIRLON = .000    BDFLAP = -11.700  
 SPDRK = 25.000    RUDDER = .000  
 ELEV-L = .000    ELEV-R = .000

RUN NO. 467/ 0    RN/L = 1.74    GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CDP	L/D
2.498	-1.15	-0.0640	.11560	.11550	-.04660	-.01420	315.70000	.09493	.02057	.09502	-.40114
2.498	1.404	-.00620	.11350	.11360	-.00340	-.01620	315.70000	.09322	.02038	.09310	-.05448
2.498	3.436	.04830	.11120	.11120	.05510	-.01820	315.70000	.09038	.02082	.09332	.42288
2.498	5.454	.10740	.11900	.10830	.11820	-.02150	315.70000	.08644	.02186	.09729	.90195
2.498	7.493	.16580	.12710	.10440	.18100	-.02270	315.70000	.08255	.02185	.10545	1.30468
2.498	9.515	.23070	.14030	.10030	.25070	-.02530	315.70000	.07872	.02158	.11908	1.64340
2.498	12.570	.32280	.16910	.09480	.35190	-.02530	315.70000	.07313	.02167	.14797	1.99899
2.498	15.610	.42620	.21390	.09130	.46800	-.02940	315.70000	.06958	.02172	.19294	1.99270
2.498	18.660	.51890	.26670	.08660	.57700	-.03380	315.70000	.06492	.02168	.24612	1.94616
2.498	21.730	.62180	.33660	.08250	.70230	-.04030	315.70000	.06022	.02228	.31595	1.84716
2.498	24.780	.71600	.41740	.07880	.82500	-.04440	315.70000	.05598	.02282	.39661	1.71569
2.498	27.330	.79400	.49450	.07480	.93240	-.04990	315.70000	.05209	.02271	.47435	1.60553
GRADIENT		.02668	-.00032	-.00121	.02865	-.00112	-.00000	-.00129	.00008	-.00039	.23222

RUN NO. 471/ 0    RN/L = 1.75    GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CDP	L/D
3.001	-0.614	-.03040	.10530	.10470	-.05150	-.02060	285.60000	.09129	.01341	.09184	-.47864
3.001	-1.156	-.03260	.10390	.10380	-.05290	-.02070	285.60000	.09074	.01306	.09088	-.50622
3.001	1.358	-.01660	.10120	.10160	-.01960	-.01960	285.60000	.08777	.01383	.08741	-.16401
3.001	3.381	.02530	.10020	.09860	.03120	-.01830	285.60000	.08486	.01374	.08656	.25263
3.001	5.402	.07760	.10220	.09450	.08690	-.01740	285.60000	.08017	.01433	.08799	.75901
3.001	7.420	.12640	.10790	.09070	.13930	-.01880	285.60000	.07651	.01419	.09385	1.17132
3.001	9.456	.18850	.12040	.08780	.20570	-.01730	285.60000	.07337	.01443	.10616	1.56543
3.001	12.500	.27630	.14640	.08310	.30150	-.02130	285.60000	.06954	.01406	.13266	1.88792
3.001	15.540	.36940	.18620	.08040	.40580	-.02500	285.60000	.06641	.01399	.17270	1.98425
3.001	18.590	.45770	.23530	.07720	.50880	-.02450	285.60000	.06265	.01455	.22159	1.94432
3.001	21.620	.54450	.29510	.07370	.61490	-.02930	285.60000	.05901	.01469	.28142	1.84525
3.001	24.680	.64230	.37340	.07120	.73950	-.03200	285.60000	.05666	.01454	.36026	1.71958
3.001	27.220	.71680	.44560	.06850	.84120	-.03630	285.60000	.05413	.01437	.43291	1.67811
GRADIENT		.02010	-.00124	-.00151	.02185	-.00061	-.00000	-.00164	.00014	-.00135	.19444



DATE 15 JUL 74

TABULATED SOURCE DATA - OA53C

PAGE 43

ARC 87-747 OA53C B C M F W V NOM. RN/L

(REL024) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
LREF = 4.2440 IN. YREF = .0000 IN.  
BREF = 26.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 25.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 475/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	-L	CD	CA	CN	CLMFD	Q	CAF	CAB	COF	L/D
3.496	-1.853	-0.5490	.09620	.09340	-.05630	-.01790	241.40000	.08837	.00703	.08920	-.57024
3.496	-1.395	-.03260	.09495	.09460	-.05330	-.02270	241.40000	.08725	.00735	.08762	-.55438
3.496	1.114	-.02500	.09150	.09200	-.02320	-.01970	241.40000	.08451	.00749	.08404	-.27296
3.496	3.126	.01440	.08980	.08880	.01930	-.01800	241.40000	.08131	.00749	.08225	.16062
3.496	5.147	.06310	.09290	.08480	.07100	-.01390	241.40000	.07548	.00932	.08154	.69479
3.496	7.169	.11220	.09610	.08130	.12330	-.01480	241.40000	.07289	.00841	.08771	1.16802
3.496	9.192	.15930	.10330	.07850	.17410	-.01150	241.40000	.06928	.00922	.09620	1.51301
3.496	12.220	.24120	.12870	.07470	.26300	-.01650	241.40000	.06502	.00968	.11921	1.87471
3.496	15.260	.32930	.16490	.07250	.36110	-.01320	241.40000	.06288	.00962	.15570	1.99585
3.496	18.290	.41030	.20960	.07030	.45540	-.01340	241.40000	.06092	.00938	.20076	1.95708
3.496	21.330	.49980	.26030	.06810	.56320	-.01670	241.40000	.05880	.00930	.25963	1.86308
3.496	24.360	.59070	.34020	.06610	.67850	-.02140	241.40000	.05646	.00964	.33150	1.73595
3.496	26.910	.67220	.41330	.06430	.78650	-.02270	241.40000	.05446	.00984	.40453	1.62651
GRADIENT		.01792	-.00160	-.00166	.01951	.00048	.00000	-.00175	.00009	-.00172	.18936

DATE 15 JUL 74

## TABULATED SOURCE DATA - ON33C

PAGE 44

ARC 87-747 ON33C B C M F M V NOM. RN/L

(REL025) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 54. FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 26.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA =  
 ATTURON =  
 SPDRK =  
 ELEV-L =

.000 ELEVON = .000  
 .000 BDFLAP = -11.700  
 25.000 RUDDER = .000  
 .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 468/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CD	L/D
2.496	-4.647	-.03900	.11660	.11660	-.03460	-.01370	319.10000	.09465	.02195	.09465	-.33276
2.496	-2.675	-.04340	.11590	.11600	-.04320	-.01480	319.10000	.09461	.02139	.09461	-.37241
2.496	-.692	-.04370	.11570	.11580	-.04350	-.01350	319.10000	.09540	.02040	.09540	-.37565
2.496	.302	-.03950	.11550	.11550	-.03930	-.01280	319.10000	.09479	.02071	.09479	-.34026
2.496	1.350	-.04290	.11550	.11550	-.04260	-.01340	319.10000	.09485	.02065	.09485	-.36883
2.496	3.382	-.04490	.11570	.11580	-.04470	-.01500	319.10000	.09490	.02090	.09490	-.38601
2.496	5.431	-.03760	.11620	.11620	-.03760	-.01640	319.10000	.09442	.02178	.09442	-.32358
2.496	7.143	-.04020	.11600	.11600	-.04010	-.01710	319.10000	.09485	.02115	.09485	-.34569
GRADIENT	-.00049	-.00011	-.00011	-.00011	-.00048	.00017	.00000	.00003	-.00015	.00003	-.00449

RUN NO. 472/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CD	L/D
3.001	-4.630	-.04120	.10490	.10490	-.04120	-.02340	287.80000	.09134	.01356	.09134	-.39276
3.001	-2.613	-.04770	.10460	.10460	-.04760	-.02220	287.80000	.09112	.01368	.09112	-.45420
3.001	-.604	-.04610	.10430	.10410	-.04600	-.01940	287.80000	.09037	.01373	.09037	-.44188
3.001	.402	-.04560	.10360	.10370	-.04540	-.02220	287.80000	.09042	.01328	.09042	-.43780
3.001	1.437	-.04770	.10360	.10360	-.04760	-.01950	287.80000	.09041	.01349	.09041	-.45813
3.001	3.521	-.03400	.10450	.10460	-.03390	-.02380	287.80000	.09076	.01384	.09076	-.51530
3.001	5.623	-.04620	.10430	.10440	-.04600	-.02120	287.80000	.09056	.01384	.09056	-.45977
3.001	7.502	-.05100	.10460	.10470	-.05080	-.02260	287.80000	.09088	.01382	.09088	-.48520
GRADIENT	-.00120	-.00010	-.00009	-.00009	-.00119	.00038	-.00000	-.00010	.00001	-.00010	-.01174

RUN NO. 476/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CD	L/D
3.496	-4.833	-.04750	.09660	.09650	-.04780	-.02240	249.50000	.08839	.00811	.08839	-.49534
3.496	-2.755	-.04780	.09610	.09590	-.04810	-.02170	249.50000	.08730	.00860	.08730	-.50156
3.496	-.646	-.05290	.09500	.09480	-.05310	-.01740	249.50000	.08668	.00812	.08668	-.56013
3.496	.354	-.05450	.09420	.09400	-.05470	-.01790	249.50000	.08612	.00788	.08612	-.58191
3.496	1.427	-.05530	-.02150	-.02160	-.05520	-.02310	249.50000	-.02993	.00833	-.02993	2.55556
3.496	3.569	-.05170	.09540	.09520	-.05190	-.01830	249.50000	.08730	.00790	.08730	-.54517
3.496	5.723	-.03210	.09590	.09580	-.03240	-.02140	249.50000	.08777	.00803	.08777	-.52697
3.496	7.494	-.05110	.09630	.09610	-.05140	-.02060	249.50000	.08745	.00864	.08745	-.53486
GRADIENT	-.00080	-.00016	-.00016	-.00016	-.00078	.00037	.00000	-.00512	-.00004	-.00512	.12458

ARC 87-747 QAS3C B C N F M V NOM. RNVL

(REL026) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. YMRP = 11.2500 IN.  
 SCALE = .0000 SCALE

ALPHA = 10.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPOBRX = 25.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 469/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.498	-4.740	.2640	.1490	.1050	.2660	-.02950	321.00000	.07722	.02328	.12507	1.78160
2.498	-2.723	.26040	.14910	.10030	.26280	-.02510	321.00000	.07606	.02222	.12600	1.76348
2.498	-.711	.25510	.14750	.09950	.27750	-.02340	321.00000	.07778	.02172	.12475	1.75043
2.498	.295	.25230	.14670	.09940	.27440	-.02330	321.00000	.07772	.02168	.12419	1.73816
2.498	1.313	.25330	.14630	.09910	.27540	-.02490	321.00000	.07742	.02168	.12407	1.74675
2.498	3.327	.25700	.14760	.09950	.27920	-.02690	321.00000	.07798	.02132	.12528	1.75926
2.498	5.348	.26420	.15030	.10080	.28680	-.02675	321.00000	.07927	.02133	.12787	1.77727
2.498	7.359	.26170	.14990	.10090	.28420	-.02940	321.00000	.07836	.02254	.12652	1.76415
2.498	9.360	.26600	.15060	.10050	.29050	-.03140	321.00000	.07706	.02344	.12633	1.79780
GRADIENT	-.00110	-.00037	-.00016	-.000123	-.00004	-.00004	-.00004	-.00004	-.00021	-.00017	-.00353

RUN NO. 473/ 0 RNVL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.051	-4.715	.21920	.12860	.08820	.23840	-.02170	288.20000	.07321	.01499	.11350	1.71110
3.051	-2.571	.21510	.12720	.08720	.23420	-.02280	288.20000	.07216	.01504	.11173	1.70297
3.051	-.627	.20550	.12480	.08650	.22430	-.01930	288.20000	.07198	.01452	.10984	1.65845
3.051	.396	.20620	.12510	.08670	.22510	-.01830	288.20000	.07217	.01433	.11016	1.66002
3.051	1.426	.20530	.12550	.08670	.22420	-.01850	288.20000	.07194	.01476	.10978	1.65498
3.051	3.471	.21510	.12730	.08710	.23430	-.02350	288.20000	.07302	.01408	.11259	1.70499
3.051	5.510	.21820	.12860	.08800	.23760	-.02220	288.20000	.07350	.01450	.11364	1.70971
3.051	7.567	.21480	.12840	.08810	.23420	-.02600	288.20000	.07319	.01491	.11275	1.68995
3.051	9.616	.22140	.13000	.08840	.24100	-.02730	288.20000	.07268	.01572	.11343	1.72209
GRADIENT	-.00096	-.00028	-.00014	-.000099	-.00013	-.00003	-.00003	-.00004	-.00010	-.00021	-.00341

RUN NO. 477/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.496	-4.918	.19090	.11420	.07960	.20770	-.01580	232.70000	.06993	.00967	.10493	1.66532
3.496	-2.811	.18750	.11250	.07850	.20410	-.01680	232.70000	.06928	.00922	.10366	1.66181
3.496	-.700	.17820	.10980	.07750	.19440	-.01210	232.70000	.06831	.00919	.10103	1.61891
3.496	.350	.17720	.10970	.07750	.19350	-.01200	232.70000	.06846	.00904	.10102	1.61114
3.496	1.406	.18190	.11080	.07780	.19630	-.01150	232.70000	.06925	.00855	.10263	1.61686
3.496	3.514	.18020	.11270	.07800	.20400	-.01360	232.70000	.06955	.00905	.10403	1.66453
3.496	5.530	.18470	.11240	.07890	.20130	-.01870	232.70000	.06943	.00947	.10333	1.63808
3.496	7.742	.18160	.11230	.07930	.20620	-.01750	232.70000	.06933	.00997	.10269	1.61243
3.496	9.850	.18690	.11330	.07930	.20360	-.01880	232.70000	.06864	.01046	.10315	1.64598
GRADIENT	-.00067	-.00026	-.00014	-.00010	-.00009	-.00004	-.00004	-.00005	-.00009	-.00017	-.00207

ARC 87-747 Q153C B C N F M Y MON. FN/L

(REL027) (11 APR 74)

## REFERENCE DATA

## PARAMETRIC DATA

BREF = 2.4210 50 FT. 30MP = 32.3010 IN.  
 LREF = 14.2440 IN. 10MP = .0000 IN.  
 BREF = 20.1004 IN. 20MP = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA = 20.000 ELEVON = .000  
 AIRLON = .000 BCLAP = -11.700  
 SPDRK = 25.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 470/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MCH	BETA	CL	CD	CA	CN	CLM/D	Q	CAF	CAB	CDF	L/D
2.498	-4.736	.50430	.30820	.08500	.65320	-.04120	322.20000	.06211	.02289	.28246	1.92947
2.498	-2.725	.50370	.30750	.08440	.65430	-.03780	322.20000	.06302	.02138	.28300	1.93331
2.498	-.725	.50350	.30720	.08410	.65400	-.03810	322.20000	.06203	.02207	.28197	1.93517
2.498	.282	.50430	.30760	.08420	.65300	-.03860	322.20000	.06175	.02245	.28205	1.93538
2.498	1.351	.50600	.30600	.08460	.64930	-.03710	322.20000	.06185	.02275	.28019	1.92726
2.498	3.328	.50190	.30710	.08460	.65250	-.03840	322.20000	.06211	.02249	.28153	1.93023
2.498	5.342	.50470	.30890	.08520	.65590	-.04130	322.20000	.06172	.02348	.28229	1.92901
2.498	7.372	.50180	.31230	.08600	.66360	-.04060	322.20000	.06193	.02407	.28516	1.93050
2.498	9.400	.50750	.31090	.08630	.65890	-.04180	322.20000	.06176	.02454	.28340	1.92411
GRADIENT	-.00043	-.00017	-.00004	-.00004	-.00047	.00030	-.00000	-.00007	.00003	-.00022	-.00018

RUN NO. 474/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MCH	BETA	CL	CD	CA	CN	CLM/D	Q	CAF	CAB	CDF	L/D
3.001	-4.716	.51550	.27160	.07610	.57770	-.03320	288.20000	.06101	.01959	.25491	1.92063
3.001	-2.672	.51550	.27180	.07600	.57780	-.02890	288.20000	.06126	.01474	.25518	1.92153
3.001	-.632	.51070	.26920	.07500	.57240	-.02960	288.20000	.05983	.01517	.25200	1.92387
3.001	.380	.51280	.27030	.07520	.57480	-.02880	288.20000	.06026	.01494	.25322	1.92473
3.001	1.405	.51260	.27080	.07560	.57480	-.02660	288.20000	.06047	.01513	.25342	1.92157
3.001	3.466	.51260	.27160	.07630	.57510	-.02920	288.20000	.06109	.01321	.25411	1.91823
3.001	5.518	.51160	.27190	.07670	.57420	-.03260	288.20000	.06108	.01562	.25378	1.91214
3.001	7.576	.51470	.27380	.07770	.57790	-.03310	288.20000	.06167	.01553	.25561	1.91210
3.001	9.634	.51270	.27350	.07760	.57590	-.03370	288.20000	.06199	.01561	.25522	1.90581
GRADIENT	-.00043	-.00026	-.00001	-.00001	-.00041	.00031	.00000	-.00004	.00003	-.00018	-.00034

RUN NO. 478/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MCH	BETA	CL	CD	CA	CN	CLM/D	Q	CAF	CAB	CDF	L/D
3.496	-4.918	.46930	.24560	.07000	.52300	-.01930	253.10000	.06045	.00955	.23636	1.91326
3.496	-2.811	.46910	.24450	.06950	.52440	-.02150	253.10000	.05837	.01063	.23421	1.92132
3.496	-.711	.46350	.24240	.06890	.51840	-.01630	253.10000	.05933	.00957	.23305	1.91521
3.496	.335	.46660	.24330	.06660	.52180	-.01720	253.10000	.05927	.00933	.23416	1.92182
3.496	1.395	.46370	.24260	.06890	.51870	-.01620	253.10000	.05878	.01012	.23264	1.91556
3.496	3.519	.46340	.24270	.06910	.51860	-.01930	253.10000	.05931	.01079	.23311	1.91367
3.496	5.638	.46640	.24470	.07000	.52200	-.02080	253.10000	.06075	.00925	.23562	1.90376
3.496	7.750	.46470	.24370	.07010	.52430	-.02070	253.10000	.06035	.00975	.23610	1.91191
3.496	9.873	.46020	.24320	.07070	.51570	-.02220	253.10000	.06036	.01034	.23310	1.89616
GRADIENT	-.00078	-.00036	-.00010	-.00010	-.00084	.00027	.00000	-.00009	.00003	-.00037	-.00011

(REL28) (11 APR 74)

ARC 87.747 0455C G C N F 52 V MON. RN/L

## REFERENCE DATA

SECF = 2.4210 SQ.FT. WREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1504 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AIRLON = .000 BDFLAP = .000  
 SPDBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 419/0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CDF	L/C
2.499	-0.566	-0.04540	.12800	.12830	-.04670	.00200	324.70000	.10731	.02079	.10797	-.35285
2.499	-1.138	-.03940	.12750	.12740	-.03370	.00160	324.70000	.10675	.02065	.10685	-.35898
2.499	1.414	.00310	.12530	.12520	.00620	-.00120	324.70000	.10444	.02076	.10456	.02481
2.499	3.455	.04930	.12560	.12240	.05680	-.05410	324.70000	.10102	.02138	.10423	.39288
2.499	5.464	.10910	.12900	.11880	.12090	-.05080	324.70000	.09686	.02194	.10790	.84023
2.499	7.473	.16420	.13700	.11450	.18060	-.01050	324.70000	.09279	.02171	.11549	1.19821
2.499	9.517	.23560	.15090	.10940	.25720	-.01470	324.70000	.08834	.02106	.12965	1.56610
2.499	11.600	.33230	.17930	.10250	.36340	-.01720	324.70000	.08143	.02107	.15874	1.85321
2.499	13.630	.43210	.22390	.09880	.47630	-.02130	324.70000	.07681	.02199	.20229	1.93342
2.499	15.711	.53470	.28090	.09450	.59660	-.02850	324.70000	.07212	.02238	.25976	1.90305
2.499	17.790	.62760	.34680	.08970	.71160	-.03590	324.70000	.06616	.02354	.32492	1.81542
2.499	19.800	.70150	.43110	.08450	.84480	-.04650	324.70000	.06019	.02431	.40899	1.69685
2.499	21.370	.81870	.51290	.07950	.98280	-.05620	324.70000	.05550	.02350	.49192	1.59857
2.499	27.370	.02411	-.05075	-.00144	.02629	-.00155	.00000	-.00160	.00016	-.00089	-.90522

RUN NO. 420/0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CDF	L/D
3.001	-1.609	-.09070	.11540	.11480	-.05200	-.00460	290.20000	.10157	.01323	.10212	-.44522
3.001	-1.137	-.04810	.11410	.11390	-.04840	-.00610	290.20000	.10055	.01335	.10066	-.42211
3.001	1.361	-.01840	.11170	.11110	-.01580	-.00690	290.20000	.09761	.01349	.01001	-.16854
3.001	3.390	.03020	.10950	.10760	.03670	-.00530	290.20000	.09391	.01369	.09591	.27626
3.001	5.420	.07750	.11120	.10340	.08760	-.00680	290.20000	.08908	.01432	.09696	.69634
3.001	7.413	.13650	.11770	.09910	.15050	-.00670	290.20000	.08490	.01420	.10361	1.15946
3.001	9.430	.18770	.12770	.09320	.20610	-.00880	290.20000	.08103	.01417	.11371	1.47020
3.001	12.440	.27620	.15360	.07730	.30290	-.01130	290.20000	.07641	.01389	.14006	1.79810
3.001	15.530	.37560	.19440	.06470	.41410	-.01640	290.20000	.07248	.01422	.18071	1.93289
3.001	18.580	.46270	.24250	.05190	.51590	-.01880	290.20000	.06768	.01472	.22853	1.91039
3.001	21.630	.56435	.30740	.03780	.63790	-.02780	290.20000	.06260	.01520	.28333	1.83338
3.001	24.640	.65750	.38340	.02360	.75750	-.03560	290.20000	.05846	.01534	.36942	1.71511
3.001	27.230	.73910	.45920	.00920	.86730	-.04100	290.20000	.05534	.01486	.44605	1.61323
3.001	GRADIENT	.02076	-.00147	-.00160	.02271	.00058	.00000	-.00191	.00011	-.00154	.18401

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS5C

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ARC 87-747 QAS5C 8 C H F W2 V NOM. RNVL

(RELO28) ( 11 APR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. WREF = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
AILRON = .000 BDFLAP = .000  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

PARAMETRIC DATA

RUN NO. 421/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMPAD	Q	CAF	CAB	CDP	L/D
3.496	-8.59	-0.0390	.10510	.10420	-.06590	-.01170	254.30000	.09645	.00775	.09742	-.60788
3.496	-3.97	-.05430	.10330	.10290	-.03500	-.01280	254.30000	.09823	.00823	.09504	-.52585
3.496	1.093	-.03060	.09960	.10220	-.02870	-.00960	254.30000	.09242	.00778	.09165	-.30718
3.496	3.134	.02070	.09740	.09610	.02600	-.00750	254.30000	.08717	.00893	.08846	-.21265
3.496	5.151	.06440	.09790	.09170	.07290	-.00680	254.30000	.08295	.00875	.08916	.65771
3.496	7.176	.10790	.10220	.08900	.11980	-.00560	254.30000	.07764	.01036	.09200	1.05469
3.496	9.191	.16170	.11190	.08470	.17750	-.00750	254.30000	.07566	.00904	.10304	1.44415
3.496	12.220	.24420	.13530	.06060	.26730	-.00750	254.30000	.07045	.01015	.12543	1.80406
3.496	15.270	.33420	.17090	.07690	.36740	-.01030	254.30000	.06768	.00922	.16205	1.95486
3.496	18.290	.42350	.21700	.07310	.47020	-.01480	254.30000	.06345	.00965	.20781	1.95192
3.496	21.360	.51400	.27630	.06990	.57940	-.01850	1.30000	.06025	.00965	.26733	1.86039
3.496	24.370	.60670	.34780	.06640	.69620	-.02600	254.30000	.05622	.01018	.33848	1.74482
3.496	26.920	.68540	.41980	.06400	.80120	-.03220	254.30000	.05451	.00949	.41134	1.63268
GRADIENT		.02095	-.00189	-.00199	.02267	.00129	.00000	-.00223	.00324	-.00213	.20365

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C N F M V NOM. RN/L

(REL029) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPBRK = 55.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 449/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.498	-4.643	-.03060	.12700	.12700	-.03040	-.00100	323.10000	.10530	.02170	.10530	-.23937
2.498	-2.660	-.03430	.12820	.12820	-.03410	.00210	323.10000	.10635	.02185	.10635	-.26599
2.498	.304	-.03820	.12830	.12840	-.03790	.00440	323.10000	.10806	.02034	.10806	-.29517
2.498	3.378	-.03590	.12940	.12950	-.03560	.00380	323.10000	.10785	.02165	.10785	-.27490
2.498	5.427	-.03800	.13050	.13010	-.03780	.00250	323.10000	.10667	.02143	.10667	-.29055
2.498	7.093	-.03600	.13000	.13010	-.03580	.00110	323.10000	.10816	.02194	.10816	-.27517
GRADIENT		-.00069	.00026	.00028	-.00067	.00059	-.00000	.00034	-.00006	.00034	-.00469

RUN NO. 452/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.001	-4.628	-.03880	.11260	.11260	-.03880	-.00920	290.10000	.09723	.01537	.09723	-.34458
3.001	-2.614	-.04070	.11310	.11310	-.04060	-.00810	290.10000	.09955	.01355	.09955	-.35897
3.001	-.605	-.04450	.11400	.11410	-.04440	-.00340	290.10000	.10068	.01342	.10068	-.38913
3.001	.398	-.04440	.11400	.11400	-.04420	-.00320	290.10000	.10020	.01380	.10020	-.38772
3.001	1.443	-.04420	.11490	.11500	-.04410	-.00370	290.10000	.10172	.01328	.10172	-.38348
3.001	3.526	-.04580	.11630	.11640	-.04560	-.00180	290.10000	.10320	.01320	.10320	-.39175
3.001	5.606	-.04690	.11680	.11680	-.04660	-.00280	290.10000	.10184	.01496	.10184	-.39897
3.001	7.297	-.04660	.11750	.11760	-.04640	-.00480	290.10000	.10242	.01518	.10242	-.39456
GRADIENT		-.00087	.00044	.00045	-.00085	.00096	.00000	.00067	-.00022	.00067	-.00598

RUN NO. 455/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.496	-4.833	-.03880	.10350	.10340	-.03910	-.01320	257.00000	.09274	.01066	.09274	-.37814
3.496	-2.752	-.04670	.10330	.10320	-.04700	-.01170	257.00000	.09491	.00829	.09491	-.45543
3.496	-.682	-.04620	.10350	.10340	-.04640	-.00780	257.00000	.09522	.00818	.09522	-.44874
3.496	.356	-.04560	.10350	.10330	-.04590	-.01090	257.00000	.09559	.00771	.09559	-.44434
3.496	1.431	-.04540	.10320	.10310	-.04560	-.00930	257.00000	.09396	.00914	.09396	-.44229
3.496	3.572	-.04990	.10590	.10570	-.05030	-.00720	257.00000	.09727	.00843	.09727	-.47588
3.496	5.722	-.04830	.10740	.10720	-.04870	-.00560	257.00000	.09679	.01041	.09679	-.45429
3.496	7.462	-.05470	.10760	.10740	-.05500	-.00560	257.00000	.09755	.00985	.09755	-.51210
GRADIENT		-.00098	.00021	.00020	-.00099	.00065	-.00000	.00039	-.00019	.00039	-.00859

ARC 67-747 0433C B C M F M V MON. RV/L

(REL030) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 50.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0350 SCALE

ALPHA = 10.000 ELEVON = .000  
 AIRLON = .000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 450/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.498	-4.735	.27560	.16100	.10920	.30010	-.01600	325.70000	.08612	.02308	.13692	1.73237
2.498	-2.721	.26660	.15980	.10970	.29080	-.01190	325.70000	.08721	.02249	.13639	1.66632
2.498	.296	.25750	.15870	.11020	.28170	-.00780	325.70000	.08888	.02132	.13645	1.64050
2.498	3.322	.26610	.16180	.11170	.29070	-.00740	325.70000	.09050	.02120	.13960	1.66303
2.498	5.339	.26660	.16270	.11290	.29140	-.00890	325.70000	.09112	.02138	.14033	1.65707
2.498	7.360	.26850	.16450	.11390	.29360	-.00990	325.70000	.09265	.02425	.13927	1.65098
2.498	9.376	.27260	.16470	.11350	.29760	-.01310	325.70000	.09395	.02255	.14124	1.67246
GRADIENT		-.00130	.00007	.00030	-.00126	.00107	-.00000	.00054	-.00025	.00032	-.00889

RUN NO. 453/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.001	-4.716	.22590	.13730	.09530	.24640	-.01020	291.60000	.07917	.01613	.12075	1.65478
3.001	-2.689	.22100	.13820	.09500	.24160	-.00720	291.60000	.07980	.01520	.12054	1.63407
3.001	-.628	.21630	.13590	.09550	.23700	-.00560	291.60000	.07990	.01560	.11984	1.60362
3.001	.397	.21690	.13640	.09580	.23780	-.00630	291.60000	.08024	.01556	.12028	1.60287
3.001	1.422	.21810	.13760	.09670	.23900	-.00280	291.60000	.08116	.01554	.12142	1.59857
3.001	5.321	.22200	.14130	.09960	.24360	-.00450	291.60000	.08453	.01507	.12555	1.58564
3.001	7.562	.22490	.14170	.09940	.24660	-.00840	291.60000	.08299	.01641	.12455	1.60323
3.001	9.614	.22990	.14340	.10000	.25180	-.00910	291.60000	.08341	.01659	.12587	1.62167
GRADIENT		-.00140	.00000	.00021	-.00136	.00101	.00000	.00027	-.00006	.00003	-.00973

RUN NO. 456/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.496	-4.919	.18940	.11900	.08460	.20710	-.01110	256.20000	.07376	.01084	.10860	1.58675
3.496	-2.811	.18790	.11940	.08520	.20570	-.00540	256.20000	.07589	.00931	.11046	1.56974
3.496	-.701	.19040	.11940	.08470	.20820	-.00620	256.20000	.07435	.01035	.10938	1.59182
3.496	.351	.18850	.11980	.08550	.20630	-.00320	256.20000	.07553	.00997	.11020	1.56900
3.496	1.405	.18030	.11960	.08670	.19820	-.00000	256.20000	.07620	.01050	.10946	1.50362
3.496	3.522	.18620	.12250	.08850	.20450	-.00430	256.20000	.07782	.01068	.11215	1.51651
3.496	5.628	.18790	.12340	.08910	.20640	-.00450	256.20000	.07974	.00936	.11437	1.51951
3.496	7.744	.18640	.12320	.08910	.20490	-.00650	256.20000	.08015	.00895	.11451	1.51074
3.496	9.849	.19110	.12410	.08930	.20970	-.00730	256.20000	.07890	.01040	.11411	1.53596
GRADIENT		-.00062	.00033	.00042	-.00056	.00092	-.00000	.00039	.00003	.00029	-.00930





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## TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C M F W V NOM. RN/L

(REL 931) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XPRP = 32.3010 IN.  
LEEF = 14.2440 IN. YMRP = .0000 IN.  
PRF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0350 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = -10.000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 451/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CD	L/C
2.498	-4.735	.59560	.32000	.09190	.66990	-.02940	326.80000	.06825	.02365	.29326	1.89576
2.498	-2.731	.59440	.32110	.09320	.66920	-.02450	326.80000	.07125	.02195	.29583	1.88639
2.498	-.723	.58980	.32020	.09380	.66450	-.02430	326.80000	.07175	.02207	.29468	1.87796
2.498	.281	.58800	.31940	.09380	.66250	-.02220	326.80000	.07087	.02293	.29319	1.87609
2.498	1.297	.59140	.32110	.09410	.66530	-.02150	326.80000	.07030	.02380	.29395	1.87757
2.498	3.319	.59170	.32000	.09300	.66630	-.02550	326.80000	.06901	.02399	.29274	1.88502
2.498	5.347	.59900	.32280	.09300	.67400	-.02790	326.80000	.06865	.02435	.29503	1.89217
2.498	7.369	.59430	.32070	.09280	.66890	-.02900	326.80000	.06830	.02450	.29296	1.88879
2.498	9.398	.59510	.32120	.09300	.66980	-.02880	326.80000	.06806	.02494	.29304	1.88829
GRADIENT		-.00062	-.00002	.00016	-.00059	.00058	-.00000	.00004	.00012	-.00016	-.00164

RUN NO. 454/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CD	L/C
3.001	-4.715	.53410	.28360	.08080	.59930	-.02530	293.30000	.06425	.01655	.26535	1.90645
3.001	-2.681	.53030	.28450	.08270	.59610	-.01840	293.30000	.06763	.01507	.26743	1.88879
3.001	-.643	.52300	.28240	.08300	.58850	-.01650	293.30000	.06773	.01527	.26493	1.87852
3.001	.386	.52650	.28310	.08230	.59200	-.01730	293.30000	.06639	.01591	.26486	1.88751
3.001	3.480	.52960	.28490	.08260	.59570	-.01780	293.30000	.06652	.01608	.26625	1.88912
3.001	5.519	.52880	.28470	.08250	.59490	-.02010	293.30000	.06698	.01552	.26641	1.88904
3.001	7.574	.52480	.28430	.08340	.59100	-.02010	293.30000	.06679	.01661	.26490	1.87817
3.001	9.629	.52220	.28440	.08430	.58860	-.01970	293.30000	.06703	.01727	.26430	1.86826
GRADIENT		-.00062	.00008	.00017	-.00054	.00081	-.00000	.00018	-.00001	-.00002	-.00184

RUN NO. 457/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CD	L/C
3.496	-4.919	.48360	.25450	.07340	.54160	-.01670	256.30000	.06302	.01038	.24445	1.90327
3.496	-2.818	.46720	.24960	.07430	.52450	-.01070	256.30000	.06661	.00769	.24198	1.87576
3.496	-.719	.47650	.25380	.07500	.53470	-.01240	256.30000	.06629	.00871	.24517	1.88195
3.496	.335	.47300	.25190	.07440	.53070	-.01050	256.30000	.06568	.00872	.24323	1.88228
3.496	1.391	.47710	.25390	.07490	.53520	-.01090	256.30000	.06516	.00974	.24428	1.88337
3.496	3.509	.47230	.25190	.07460	.53010	-.01340	256.30000	.06507	.00953	.24245	1.87989
3.496	5.632	.47600	.25430	.07560	.53440	-.01530	256.30000	.06537	.01023	.24421	1.87661
3.496	7.754	.47140	.25290	.07590	.52950	-.01610	256.30000	.06673	.00917	.24380	1.86833
3.496	9.873	.46590	.25160	.07660	.52390	-.01330	256.30000	.06589	.01071	.24110	1.85378
GRADIENT		-.00064	-.00006	.00014	-.00062	.00034	-.00000	.00013	.00001	-.00009	-.00187

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TABULATED SOURCE DATA - Q453C

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ARC 87-747 Q453C B C H F M V NOM. RN/L

(REL032) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.    WREF = 32.3010 IN.  
 LREF = 14.2440 IN.    YREF = .0000 IN.  
 BREF = 28.1004 IN.    ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000    ELEVON = .000  
 AILRON = .000    BDFLAP = -11.700  
 SPDRK = 46.000    RUDDER = -20.000  
 ELEV-L = .000    ELEV-R = .000

RUN NO. 491/ 0    RN/L = 1.74    GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
2.499	-4.633	-.02790	.12550	.12550	-.02760	-.00540	315.10000	.10373	.02177	.10373	-.21992
2.499	-2.670	-.02930	.12740	.12750	-.02900	.00180	315.10000	.10606	.02144	.10606	-.22745
2.499	-.689	-.03370	.12820	.12830	-.03940	.00500	315.10000	.10759	.02071	.10759	-.30709
2.499	.298	-.02190	.12800	.12800	-.02160	.00370	315.10000	.10747	.02053	.10747	-.16875
2.499	1.324	-.03370	.12860	.12870	-.03950	.00670	315.10000	.10827	.02043	.10827	-.13092
2.499	3.376	-.04400	.13010	.13020	-.04370	.00620	315.10000	.10924	.02096	.10924	-.33564
2.499	5.428	-.04190	.13110	.13120	-.04170	.00500	315.10000	.10988	.02132	.10988	-.31784
2.499	7.121	-.04070	.13200	.13210	-.04050	.00420	315.10000	.11123	.02087	.11123	-.30659
GRADIENT	-.00180	.00051	.00052	.00052	-.00181	.00139	-.00000	.00066	-.00014	.00066	-.01354

RUN NO. 494/ 0    RN/L = 1.74    GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
3.000	-4.636	-.02360	.11130	.11130	-.02350	-.01190	287.20000	.09646	.01484	.09646	-.21114
3.000	-2.619	-.02770	.11240	.11250	-.02760	-.01090	287.20000	.09793	.01457	.09793	-.24533
3.000	-.613	-.03580	.11360	.11360	-.03560	-.00740	287.20000	.09997	.01363	.09997	-.31338
3.000	.389	-.03800	.11400	.11400	-.03780	-.00480	287.20000	.10078	.01322	.10078	-.33158
3.000	1.438	-.03870	.11530	.11530	-.03850	-.00330	287.20000	.10183	.01347	.10183	-.33391
3.000	3.521	-.04090	.11710	.11720	-.04070	-.00380	287.20000	.10280	.01440	.10280	-.34727
3.000	5.600	-.04400	.11780	.11790	-.04380	-.00290	287.20000	.10401	.01389	.10401	-.37150
3.000	7.325	-.04560	.11940	.11950	-.04540	-.00110	287.20000	.10547	.01403	.10547	-.37992
GRADIENT	-.00228	.00070	.00070	.00070	-.00227	.00120	.00000	.00082	-.00011	.00082	-.01814

RUN NO. 497/ 0    RN/L = 1.74    GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
3.496	-4.835	-.03110	.10180	.10170	-.03140	-.01920	252.20000	.09301	.00869	.09301	-.30875
3.496	-2.764	-.04060	.10230	.10220	-.04090	-.01240	252.20000	.09404	.00816	.09404	-.40020
3.496	-.686	-.04200	.10310	.10300	-.04230	-.01210	252.20000	.09467	.00833	.09467	-.41068
3.496	.351	-.04510	.10330	.10320	-.04540	-.00930	252.20000	.09445	.00875	.09445	-.43992
3.496	1.421	-.05170	.10440	.10430	-.05200	-.00830	252.20000	.09610	.00820	.09610	-.49856
3.496	3.574	-.05080	.10670	.10660	-.05110	-.00780	252.20000	.09831	.00829	.09831	-.47636
3.496	5.714	-.05250	.10880	.10860	-.05290	-.00590	252.20000	.10024	.00836	.10024	-.48711
3.496	7.492	-.05030	.11020	.11000	-.05070	-.00380	252.20000	.10135	.00865	.10135	-.46091
GRADIENT	-.00239	.00055	.00055	.00055	-.00239	.00130	-.00000	.00058	-.00003	.00058	-.02187

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TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C H F M V NOM. RN/L

(REL033) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 23.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

RUN NO. 492/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMF/D	Q	CAF	CAB	COF	L/D
2.499	-4.739	.27200	.15910	.10810	.23600	-.01560	317.80000	.08507	.02303	.13517	1.72771
2.499	-2.722	.25050	.15840	.10950	.28460	-.01260	317.80000	.08701	.02249	.13511	1.66137
2.499	-7.712	.25740	.15790	.10950	.28150	-.00840	317.80000	.08797	.02153	.13551	1.64760
2.499	.286	.25170	.15740	.11000	.27570	-.00780	317.80000	.08805	.02195	.13459	1.61590
2.499	1.304	.27240	.16160	.11040	.29690	-.01360	317.80000	.08916	.02124	.13936	1.70465
2.499	3.325	.25810	.16110	.11250	.28270	-.00610	317.80000	.09087	.02163	.13858	1.61914
2.499	5.339	.26220	.16320	.11380	.28710	-.00870	317.80000	.09187	.02193	.14033	1.62496
2.499	7.365	.25930	.16430	.11540	.28440	-.00770	317.80000	.09244	.02296	.14042	1.59502
2.499	9.379	.26210	.16540	.11600	.28740	-.00900	317.80000	.09295	.02305	.14144	1.60158
GRADIENT		-.00102	.00031	.00047	-.00095	.00094	-1.00000	.00067	-.00020	.00049	-.00058

RUN NO. 495/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMF/D	Q	CAF	CAB	COF	L/D
3.000	-4.714	.22590	.13540	.09350	.24620	-.01450	287.10000	.07829	.01521	.11985	1.67782
3.000	-2.674	.21990	.13510	.09420	.24030	-.01000	287.10000	.07952	.01468	.12004	1.63790
3.000	-.633	.21490	.13530	.09520	.23550	-.00460	287.10000	.07984	.01536	.11953	1.59966
3.000	.393	.21600	.13620	.09580	.23670	-.00400	287.10000	.08065	.01515	.12053	1.59818
3.000	1.421	.21410	.13680	.09660	.23490	-.00270	287.10000	.08138	.01522	.12094	1.57853
3.000	3.463	.21750	.13940	.09860	.23880	-.00290	287.10000	.08346	.01514	.12366	1.57358
3.000	5.510	.22110	.14210	.10050	.24290	-.00320	287.10000	.08507	.01543	.12596	1.57106
3.001	7.561	.22300	.14280	.10080	.24490	-.00650	287.10000	.08501	.01579	.12624	1.57746
3.000	9.607	.22270	.14400	.10200	.24480	-.00840	287.10000	.08613	.01587	.12733	1.56246
GRADIENT		-.00113	.00046	.00061	-.00102	.00152	-1.00000	.00059	.00002	.00040	-.01314

RUN NO. 498/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMF/D	Q	CAF	CAB	COF	L/D
3.496	-4.920	.19320	.11820	.08320	.21070	-.01320	252.20000	.07376	.00944	.10922	1.62880
3.496	-2.809	.19030	.11900	.08440	.20600	-.00670	252.20000	.07487	.00953	.10985	1.59501
3.496	-.702	.18490	.11870	.08500	.20260	-.00510	252.20000	.07543	.00957	.10947	1.55406
3.496	.352	.18220	.11500	.08580	.20000	-.00310	252.20000	.07596	.00964	.10954	1.52704
3.496	1.401	.18510	.12060	.08680	.20310	-.00200	252.20000	.07734	.00946	.11143	1.53162
3.496	3.519	.17940	.12200	.08920	.19770	-.00070	252.20000	.07919	.01001	.11232	1.46681
3.496	5.628	.18650	.12460	.09020	.20720	-.00300	252.20000	.08063	.00957	.11339	1.50941
3.496	7.740	.18020	.12370	.09110	.20800	-.00220	252.20000	.08033	.01077	.11322	1.50213
3.496	9.855	.18860	.12540	.09100	.20740	-.00460	252.20000	.08013	.01087	.11492	1.49999
GRADIENT		-.00161	.00041	.00067	-.00152	.00143	.00000	.00062	.00005	.00034	-.01654

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TABULATED SOURCE DATA - Q453C

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ARC 87-747 Q453C B C M F M V NOM. RN/L

(REL034) ( 11 APR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0350 SCALE

ALPHA = 20.000 ELEVON = .000  
 ATILRON = .000 BDFLAP = -11.700  
 SPDRK = 46.000 RUDDER = -20.000  
 ELEV-L = .000 ELEV-R = .000

PARAMETRIC DATA

RUN NO. 493/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	CAF	CAB	CDF	L/D
2.499	-4.737	.59560	.31970	.09170	.66970	-.03010	.06855	.02315	.29347	1.89692
2.499	-2.727	.58680	.31850	.09360	.66100	-.02720	.07143	.02217	.29319	1.87601
2.499	-.723	.58490	.31850	.09410	.65930	-.02320	.07189	.02221	.29305	1.87104
2.499	.280	.58250	.31740	.09390	.65660	-.02330	.07148	.02242	.29174	1.86980
2.499	1.296	.58050	.31680	.09410	.65460	-.02190	.07175	.02235	.29131	1.86653
2.499	3.317	.58790	.31780	.09240	.66190	-.02620	.07037	.02203	.29251	1.88493
2.499	5.342	.58920	.31830	.09240	.66330	-.02940	.06935	.02305	.29203	1.88625
2.499	7.367	.59070	.31960	.09310	.66510	-.02850	.06952	.02358	.29280	1.88323
2.499	9.393	.59330	.32110	.09370	.66810	-.02960	.07030	.02340	.29456	1.88203
GRADIENT	-.00115	-.00028	.00011	-.00116	.00069	-.00000	.00021	-.00010	-.00020	-.00181

RUN NO. 496/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	CAF	CAB	CDF	L/D
3.000	-4.718	.52760	.27970	.07950	.59190	-.02720	.06382	.01568	.26241	1.90878
3.001	-2.674	.52190	.28070	.08210	.58690	-.01970	.06638	.01572	.26311	1.88364
3.000	-.636	.51960	.28010	.08200	.58460	-.01590	.06668	.01532	.26261	1.88195
3.000	.375	.51320	.27870	.08220	.57990	-.01490	.06664	.01556	.26096	1.87537
3.001	1.409	.51680	.27950	.08240	.58150	-.01610	.06724	.01516	.26207	1.87557
3.001	3.464	.52260	.28140	.08180	.58790	-.02040	.06627	.01553	.26334	1.88698
3.000	5.520	.52430	.28270	.08230	.58990	-.02050	.06658	.01572	.26432	1.89530
3.001	7.575	.52290	.28370	.08360	.58900	-.02070	.06761	.01599	.26498	1.87454
3.001	9.630	.51800	.28330	.08490	.58430	-.01950	.06822	.01668	.26395	1.89974
GRADIENT	-.00086	.00007	.00025	-.00077	.00092	.00000	.00029	-.00004	.00001	-.00271

RUN NO. 499/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	CAF	CAB	CDF	L/D
3.496	-4.919	.48270	.25260	.07190	.54000	-.01870	.06173	.01017	.24269	1.90411
3.496	-2.816	.47920	.25310	.07340	.53690	-.01780	.06368	.00972	.24347	1.89790
3.496	-.712	.47420	.25260	.07470	.53210	-.01280	.06507	.00963	.24314	1.88141
3.496	.341	.47270	.25170	.07430	.53040	-.01220	.06461	.00969	.24212	1.88277
3.496	1.400	.47520	.25260	.07430	.53300	-.01060	.06360	.01070	.24206	1.86582
3.496	3.511	.47460	.25260	.07450	.53240	-.01300	.06450	.01000	.24276	1.88344
3.496	5.634	.47200	.25210	.07490	.52980	-.01560	.06449	.01041	.24181	1.87703
3.496	7.753	.46830	.25220	.07630	.52640	-.01540	.06362	.01068	.24170	1.86129
3.496	9.865	.46910	.25340	.07720	.52750	-.01410	.06840	.01000	.24221	1.81517
GRADIENT	-.00102	-.00004	.00029	-.00097	.00091	.00000	.00027	-.00003	-.00003	-.00360

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TABULATED SOURCE DATA - 0433C

DATE 15 JUL 74

(REL035) (11 APR 74)

ARC 87-747 0433C B C M F W V NOM. RN/L

PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 ALLCON = .000 BCFAP = -11.700  
 SPDRK = 25.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 26.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

RUN NO. 458/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLM/D	Q	CAF	CAB	CD	L/D
2.498	-4.647	-.03000	.11710	.11720	-.02980	-.01400	310.80000	-.09578	.02142	.09578	-.25427
2.498	-2.667	-.02610	.11720	.11730	-.02990	-.01080	310.80000	.09589	.02141	.09589	-.22080
2.498	-.687	-.03660	.11780	.11790	-.03640	-.00810	310.80000	.09554	.02236	.09554	-.30874
2.498	.300	-.02510	.11650	.11650	-.02480	-.00930	310.80000	.09636	.02014	.09636	-.21288
2.498	1.329	-.03780	.11710	.11720	-.03750	-.00870	310.80000	.09669	.02051	.09669	-.31997
2.498	3.377	-.04050	.11820	.11830	-.04010	-.00990	310.80000	.09705	.02125	.09705	-.33897
2.498	5.425	-.03770	.11900	.11900	-.03750	-.01140	310.80000	.09724	.02176	.09724	-.31513
2.498	7.141	-.03740	.11960	.11960	-.03720	-.01280	310.80000	.09863	.02097	.09863	-.31104
GRADIENT	-.06140	.00008	.00008	.00008	-.00140	.00052	.00000	.00017	-.00009	.00017	-.01167

RUN NO. 461/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLM/D	Q	CAF	CAB	CD	L/D
3.001	-4.630	-.02340	.10440	.10440	-.02530	-.02180	282.50000	.09074	.01366	.09074	-.24234
3.001	-2.616	-.02840	.10440	.10440	-.02830	-.02060	282.50000	.09103	.01337	.09103	-.21107
3.001	-.608	-.03350	.10440	.10440	-.03330	-.01570	282.50000	.09084	.01356	.09084	-.33812
3.001	.402	-.03450	.10270	.10270	-.03430	-.01760	282.50000	.08934	.01336	.08934	-.33398
3.001	1.440	-.03420	.10440	.10440	-.03410	-.01630	282.50000	.09093	.01347	.09093	-.32663
3.001	3.522	-.04100	.10560	.10560	-.04080	-.01530	282.50000	.09188	.01372	.09188	-.32636
3.001	5.605	-.03960	.10640	.10650	-.03940	-.01510	282.50000	.09304	.01346	.09304	-.35995
3.001	7.320	-.03780	.10730	.10740	-.03760	-.01620	282.50000	.09350	.01390	.09350	-.35009
GRADIENT	-.00181	.00008	.00008	.00008	-.00180	.00084	-.00000	.00007	.00001	.00007	-.01696

RUN NO. 464/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLM/D	Q	CAF	CAB	CD	L/D
3.496	-4.636	-.03160	.09600	.09590	-.03190	-.02230	246.70000	.08783	.00807	.08783	-.33264
3.496	-2.756	-.03710	.09580	.09570	-.03740	-.02310	246.70000	.08789	.00781	.08789	-.33080
3.496	-.607	-.04230	.09460	.09440	-.04260	-.01740	246.70000	.08607	.00833	.08607	-.45127
3.496	.353	-.04390	.09550	.09540	-.04420	-.01780	246.70000	.08768	.00772	.08768	-.46331
3.496	1.427	-.04390	.09550	.09550	-.04420	-.02050	246.70000	.08808	.00742	.08808	-.46283
3.496	3.572	-.04450	.09670	.09660	-.04480	-.01700	246.70000	.08869	.00791	.08869	-.46377
3.496	5.716	-.04320	.09720	.09710	-.04350	-.01950	246.70000	.08901	.00809	.08901	-.44799
3.496	7.486	-.04340	.09840	.09820	-.04370	-.01960	246.70000	.08986	.00834	.08986	-.44501
GRADIENT	-.00159	.00005	.00005	.00005	-.00159	.00066	-.00000	.00009	-.00004	.00009	-.01637

DATE 15 JUL 74

TABULATED SOURCE DATA - QN33C

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ARC 67-747 QN33C B C M F W V NONL RN/L

(RELO36) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA = 10.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPCBRK = 25.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 459/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.498	-4.733	.27350	.15180	.10070	.29620	-.02620	311.50000	.07815	.02255	.12840	1.82075
2.498	-2.723	.26660	.15060	.10070	.28920	-.02260	311.50000	.07903	.02167	.12805	1.78942
2.498	-.707	.26100	.14900	.10010	.28340	-.02210	311.50000	.07842	.02168	.12844	1.77083
2.498	.300	.25690	.14890	.10020	.28230	-.01880	311.50000	.07693	.02127	.12675	1.76446
2.498	1.305	.25910	.14870	.10010	.28140	-.02180	311.50000	.07836	.02174	.12604	1.75164
2.498	3.322	.26290	.15080	.10150	.28550	-.01910	311.50000	.07974	.02176	.12811	1.76238
2.498	5.336	.26950	.15300	.10250	.29250	-.02260	311.50000	.08032	.02218	.12989	1.78112
2.498	7.354	.27000	.15440	.10390	.29320	-.02170	311.50000	.08137	.02243	.13104	1.78784
2.498	9.379	.27320	.15480	.10360	.29650	-.02650	311.50000	.08014	.02346	.13041	1.78490
2.498	GRADIENT	-.001 3	-.00022	.00004	-.00132	.00080	.00000	.00013	-.00009	-.00014	-.00736

RUN NO. 462/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.001	-4.719	.22760	.12990	.08780	.24690	-.02000	282.30000	.07317	.01463	.11494	1.76205
3.001	-2.675	.22510	.12870	.08700	.24430	-.01840	282.30000	.07338	.01368	.11468	1.76019
3.001	-.628	.22260	.12610	.08670	.24170	-.01590	282.30000	.07278	.01392	.11364	1.75092
3.001	.398	.20960	.12620	.08710	.22890	-.01400	282.30000	.07296	.01414	.11155	1.67369
3.001	1.422	.21570	.12740	.08720	.23490	-.01370	282.30000	.07332	.01388	.11259	1.73623
3.001	3.464	.22360	.12990	.08820	.24310	-.01610	282.30000	.07438	.01322	.11615	1.77614
3.001	5.516	.22140	.13130	.08980	.24120	-.01710	282.30000	.07518	.01462	.11592	1.77216
3.001	7.563	.22730	.13290	.09030	.24740	-.02030	282.30000	.07566	.01464	.11747	1.78943
3.001	9.611	.23010	.13430	.09120	.25040	-.02270	282.30000	.07599	.01531	.11822	1.75119
3.001	GRADIENT	-.00110	-.00011	.00004	-.00109	.00065	-.00000	.00016	-.00012	-.00013	-.00545

RUN NO. 465/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.496	-4.922	.19070	.11320	.07870	.20730	-.01760	247.00000	.06941	.00929	.10435	1.67825
3.496	-2.811	.19200	.11340	.07860	.20860	-.01380	247.00000	.06932	.00928	.10449	1.68779
3.496	-.704	.18610	.11150	.07780	.20260	-.01320	247.00000	.06898	.00882	.10311	1.65381
3.496	.353	.18060	.11040	.07770	.19690	-.01320	247.00000	.06891	.00879	.10205	1.62362
3.496	1.409	.18330	.11160	.07840	.19980	-.01070	247.00000	.06951	.00879	.10324	1.63665
3.496	3.517	.18780	.11390	.07980	.20460	-.01090	247.00000	.07164	.00816	.10608	1.64224
3.496	5.632	.19120	.11530	.08060	.20820	-.01640	247.00000	.07180	.00900	.10667	1.65162
3.496	7.737	.19040	.11500	.08050	.20730	-.01390	247.00000	.07113	.00937	.10505	1.64977
3.496	9.853	.18570	.11530	.08160	.20280	-.01770	247.00000	.07200	.00960	.10612	1.67142
3.496	GRADIENT	-.00082	-.00006	.00007	-.00081	.00077	.00000	.00000	-.00013	.00006	-.00615

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C H F M V NOM. RN/L

(REL037) (11 APR 74)

## REFERENCE DATA

SEEF = 2.4210 SQ. FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 26.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
 ATLRON = .000 BDFLAP = -11.700  
 SPDRK = 25.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 460/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CD	L/D
2.498	-4.796	.59190	.31360	.08740	.66410	-.03850	314.10000	.06475	.02265	.28798	1.92119
2.498	-2.725	.59460	.31190	.03480	.66610	-.03530	314.10000	.06288	.02192	.28691	1.94119
2.498	-.722	.58920	.31010	.08490	.66540	-.03290	314.10000	.06335	.02155	.28540	1.93534
2.498	.281	.59020	.31020	.09460	.66130	-.03280	314.10000	.06286	.02174	.28524	1.93827
2.498	1.287	.58990	.31040	.08480	.66120	-.03550	314.10000	.06228	.02252	.28467	1.93677
2.498	3.317	.58890	.31020	.08500	.66010	-.03440	314.10000	.06320	.02180	.28515	1.93436
2.498	5.342	.59510	.31340	.08590	.66710	-.03670	314.10000	.06377	.02213	.28808	1.93437
2.498	7.367	.59190	.31280	.08640	.66373	-.03530	314.10000	.06346	.02294	.28663	1.92779
2.498	9.390	.59560	.31490	.08710	.66810	-.03500	314.10000	.06315	.02395	.28784	1.92631
	GRADIENT	-.00053	-.00042	-.00025	.00064	.00044	-.00000	-.00019	-.00006	-.00040	.00116

RUN NO. 463/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CD	L/D
3.001	-4.710	.52630	.27490	.07540	.58900	-.02770	283.40000	.06030	.01510	.25812	1.93788
3.001	-2.676	.52060	.27390	.07690	.58330	-.02470	283.40000	.06069	.01561	.25653	1.92488
3.001	-.632	.51610	.27200	.07580	.57850	-.02290	283.40000	.06043	.01537	.25464	1.93386
3.001	.379	.51640	.27180	.07470	.58060	-.02390	283.40000	.05948	.01522	.25447	1.93486
3.001	1.410	.51630	.27210	.07560	.57870	-.02340	283.40000	.06057	.01503	.25484	1.92567
3.001	3.465	.52000	.27430	.07620	.58300	-.02560	283.40000	.06109	.01511	.25681	1.92537
3.001	5.517	.52140	.27600	.07710	.58490	-.02900	283.40000	.06205	.01505	.25835	1.92022
3.001	7.575	.52540	.27850	.07890	.58950	-.02610	283.40000	.06281	.01519	.26065	1.91793
3.001	9.627	.52310	.27890	.07900	.58750	-.02570	283.40000	.06336	.01564	.26047	1.95808
	GRADIENT	-.00084	-.00018	.00002	-.00063	.00028	.00000	.00005	-.00003	-.00024	-.00102

RUN NO. 466/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CD	L/D
3.496	-4.918	.47790	.24790	.06920	.53390	-.02060	249.20000	.05979	.00941	.23679	1.93043
3.496	-2.811	.47690	.24720	.06900	.53220	-.02190	249.20000	.05914	.00986	.23760	1.93025
3.496	-.714	.47190	.24580	.06910	.52750	-.01870	249.20000	.06047	.00863	.23724	1.92402
3.496	.338	.46780	.24400	.06880	.52310	-.01710	249.20000	.05977	.00903	.23508	1.92158
3.496	1.398	.47060	.24500	.06880	.52610	-.01800	249.20000	.05936	.00944	.23571	1.92504
3.496	3.515	.46910	.24480	.06910	.52460	-.02040	249.20000	.05965	.00945	.23548	1.92067
3.496	5.631	.46930	.24630	.07050	.52530	-.02020	249.20000	.06119	.00931	.23717	1.90926
3.496	7.750	.46610	.24580	.07110	.52220	-.01720	249.20000	.06210	.00900	.23696	1.90041
3.496	9.865	.46440	.24610	.07200	.52060	-.02130	249.20000	.06270	.00930	.23697	1.89073
	GRADIENT	-.00119	-.00043	-.00002	-.00126	.00025	-.00000	-.00000	-.00002	-.00043	-.00124

DATE 19 JUL 74

TABULATED SOURCE DATA - QAS5C

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ARC 87-747 QAS5C B C H F M V NOM. RN/L

(REL038) (11 APR 74)

## REFERENCE DATA

SREF = 2.4210 58.FT. ZMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1954 IN. ZMRP = 11.2590 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
 ALLRON = .000 BOFLAP = -11.700  
 SPOBRK = 85.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 482/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
2.498	-0.577	-0.06010	.14630	.14540	-.06160	.03250	321.90000	.12543	.01997	.12625	-.54804
2.498	-.597	-.06400	.14440	.14430	-.06430	.03250	321.90000	.12424	.02506	.12435	-.44357
2.498	1.422	-.02410	.14160	.14220	-.02060	.02950	321.90000	.12174	.02046	.12119	-.17330
2.498	3.447	.03290	.14100	.13670	.04150	.02270	321.90000	.11758	.02112	.11985	.23335
2.498	5.470	.08610	.14360	.13480	.09930	.01920	321.90000	.11345	.02135	.12240	.59366
2.498	7.509	.14740	.13950	.13070	.16960	.01640	321.90000	.10837	.02143	.12931	.97899
2.498	9.526	.20970	.16170	.12480	.23360	.01620	321.90000	.10340	.02140	.14563	1.29669
2.498	12.590	.30830	.18980	.11850	.34220	.01320	321.90000	.09704	.02096	.16930	1.62449
2.498	15.640	.40810	.23290	.11430	.45570	.00770	321.90000	.09242	.02188	.21185	1.75172
2.498	18.690	.50550	.28600	.10890	.57050	-.00010	321.90000	.08645	.02245	.26471	1.76772
2.498	21.750	.60630	.35150	.10180	.69340	-.30700	321.90000	.07907	.02273	.33038	1.72495
2.498	24.800	.70400	.42990	.09490	.81940	-.01640	321.90000	.07139	.02351	.40850	1.63765
2.498	27.850	.78590	.50430	.08690	.92970	-.02670	321.90000	.06450	.02240	.48442	1.55826
2.498	GRADIENT	.02777	-.00125	-.00163	.03023	-.00250	.00000	-.00191	.00029	-.00153	.15246

RUN NO. 486/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/D
3.001	-0.605	-.07240	.12940	.12870	-.07380	.01690	289.40000	.11528	.01342	.11605	-.55948
3.001	-.147	-.07200	.12720	.12700	-.07240	.01830	289.40000	.11322	.01378	.11341	-.56651
3.001	1.366	-.02780	.12360	.12430	-.02460	.01650	289.40000	.11047	.01383	.10925	-.22443
3.001	3.390	.01590	.12240	.12130	.02220	.01820	289.40000	.10741	.01389	.10854	.12245
3.001	5.423	.08160	.12540	.11720	.09320	.02340	289.40000	.10259	.0151	.11594	.65113
3.001	7.438	.11260	.12820	.11260	.12830	.01690	289.40000	.09816	.01444	.11395	.87424
3.001	9.466	.17440	.13900	.10840	.19490	.01680	289.40000	.09361	.01475	.12438	1.25551
3.001	12.500	.25750	.16310	.10350	.28670	.01400	289.40000	.08887	.01463	.14282	1.57865
3.001	15.560	.35140	.20100	.09940	.39250	.00750	289.40000	.08478	.01492	.18596	1.74813
3.001	18.590	.44280	.24820	.09410	.49880	.00270	289.40000	.07937	.01473	.23424	1.78392
3.001	21.640	.53680	.30790	.08830	.61250	-.00550	289.40000	.07278	.01552	.29353	1.74353
3.001	24.690	.63630	.38320	.08270	.73820	-.00980	289.40000	.06714	.01526	.36936	1.66039
3.001	27.730	.70920	.45190	.07740	.83740	-.01820	289.40000	.06239	.01501	.43864	1.55953
3.001	GRADIENT	.02307	-.00168	-.00178	.02322	.00014	.00000	-.00187	.00009	-.00176	.18071



TABULATED SOURCE DATA - QAS5C

DATE : JUL 74

(REL038) ( 11 APR 74 )

ARC 87-747 QAS5C B C M F M R V NON. RNL

REFERENCE DATA

SREF = 2.4210 SQ.FT. WREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0320 SCALE

BETA = .000 ELEVON = .000  
 AIRON = .000 BCLAP = -11.700  
 SP3BK = 85.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

PARAMETRIC DATA

RUN NO. 490/ 0 RNL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLAPLD	Q	CAF	CAB	CDP	L/D
3.496	-0.852	-0.7790	.11630	.11310	-.07960	.00880	254.10000	.10660	.00850	.10777	-0.66582
3.496	-0.397	-0.07450	.11480	.11430	-.07530	.00880	254.10000	.10521	.00909	.10573	-0.64890
3.496	1.117	-0.03960	.11070	.11150	-.03750	.00840	254.10000	.10348	.00802	.10273	-0.35817
3.496	3.136	.00350	.10780	.10750	.00390	.01160	254.10000	.09861	.00889	.09897	.03157
3.496	5.152	.04010	.10780	.10380	.04960	.01310	254.10000	.09500	.00840	.09907	.37167
3.496	7.178	.09730	.11320	.10010	.11070	.01460	254.10000	.09098	.00912	.10410	.86216
3.496	9.203	.14320	.12090	.09640	.16070	.01380	254.10000	.08674	.00966	.11133	1.18493
3.496	12.230	.22630	.14400	.09280	.25170	.01350	254.10000	.08244	.01036	.13389	1.57159
3.496	15.260	.30930	.17610	.08850	.34480	.00930	254.10000	.07899	.00951	.16693	1.75636
3.496	18.300	.40220	.22190	.08350	.45130	.00370	254.10000	.07399	.00951	.21195	1.82032
3.496	21.340	.49380	.27710	.07840	.56080	.00060	254.10000	.06841	.00999	.26780	1.78210
3.496	24.390	.58590	.34680	.07400	.67680	-.00600	254.10000	.06442	.00958	.33815	1.68690
3.496	26.920	.66200	.41450	.06990	.77800	-.01470	254.10000	.06036	.00954	.40606	1.55698
3.496		.02104	-.03212	-.00191	.02292	.00667	.00000	-.00192	.00061	-.00211	.18157

GRADIENT

DATE 15 JUL 74

TABULATED SOURCE DATA - OASXC

PAGE 60

ARC 87-747 OASXC B C N F M V MON. RWL

(REL039) ( 11 APR 74 )

## REFERENCE DATA

SHEF = 2.4210 54 FT. 1967 = 32.3010 IN.  
 LREF = 14.2440 IN. 1967 = .0000 IN.  
 SHEF = 28.1004 IN. 1967 = 11.2500 IN.  
 SCALE = .0300 SCALE

RUN NO. 479/ 0 RWL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	COF	L/D
2.498	-4.632	-0.09970	.14320	.14320	-0.09950	.02460	317.30000	.12087	.02233	.12087	-0.41550
2.498	-2.673	-0.09930	.14440	.14450	-0.09900	.02930	317.30000	.12280	.02170	.12280	-0.40830
2.498	-1.606	-0.06300	.14420	.14430	-0.06280	.02940	317.30000	.12345	.02085	.12345	-0.43520
2.498	.305	-0.05030	.14380	.14370	-0.05000	.03090	317.30000	.12281	.02089	.12281	-0.34795
2.498	1.327	-0.06370	.14400	.14410	-0.06350	.02920	317.30000	.12355	.02055	.12355	-0.44067
2.498	3.365	-0.06220	.14400	.14410	-0.06190	.02870	317.30000	.12361	.02049	.12361	-0.42956
2.498	5.450	-0.06050	.14310	.14320	-0.06030	.02360	317.30000	.12196	.02124	.12196	-0.42109
2.498	7.062	-0.05700	.14170	.14170	-0.05680	.02030	317.30000	.12085	.02085	.12085	-0.40585
2.498	GRADIENT	-0.00224	.02005	.00006	-0.00223	.00044	.00000	.00030	-0.00024	.00030	-0.00142

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AIRRON = .000 BCLAP = -11.700  
 SPDRK = 85.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 483/ 0 RWL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	COF	L/D
3.007	-4.626	-0.03300	.12750	.12750	-0.03300	.01590	286.00000	.11306	.01444	.11306	-0.42136
3.001	-2.609	-0.03470	.12770	.12770	-0.03460	.01580	286.00000	.11356	.01414	.11356	-0.42756
3.001	-1.604	-0.06310	.12760	.12760	-0.06300	.01810	286.00000	.11324	.01436	.11324	-0.50940
3.001	.396	-0.05940	.12700	.12700	-0.05930	.01760	286.00000	.11340	.01360	.11340	-0.46693
3.001	1.444	-0.06270	.12610	.12620	-0.06260	.01760	286.00000	.11231	.01389	.11231	-0.49804
3.001	3.520	-0.05890	.12680	.12690	-0.05880	.01670	286.00000	.11308	.01382	.11308	-0.46336
3.001	5.602	-0.06230	.12670	.12680	-0.06210	.01490	286.00000	.11271	.01459	.11271	-0.48975
3.001	7.259	-0.06030	.12660	.12670	-0.06020	.01040	286.00000	.11218	.01452	.11218	-0.47514
3.001	GRADIENT	-0.00048	-0.00015	-0.00013	-0.00087	.00018	-0.00000	-0.00055	-0.00008	-0.00055	-0.00700

RUN NO. 487/ 0 RWL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	COF	L/D
3.496	-4.833	-0.05150	.11820	.11800	-0.05190	.03380	232.30000	.10945	.00855	.10945	-0.43983
3.496	-2.754	-0.06480	.11590	.11570	-0.06520	.00950	232.30000	.10685	.00885	.10685	-0.56353
3.496	-1.677	-0.06090	.11470	.11450	-0.06130	.00990	232.30000	.10600	.00850	.10600	-0.53537
3.496	.357	-0.06550	.11420	.11400	-0.06590	.01060	232.30000	.10604	.00796	.10604	-0.57807
3.496	1.433	-0.06630	.11420	.11400	-0.06660	.00750	232.30000	.10558	.00842	.10558	-0.58421
3.496	3.582	-0.06410	.11530	.11510	-0.06450	.00830	232.30000	.10677	.00833	.10677	-0.56038
3.496	5.725	-0.06050	.11560	.11530	-0.06070	.00850	232.30000	.10682	.00848	.10682	-0.53584
3.496	7.423	-0.05920	.11510	.11480	-0.05960	.00300	232.30000	.10591	.00879	.10591	-0.51916
3.496	GRADIENT	-0.00132	-0.00038	-0.00132	-0.00132	.00038	-0.00000	-0.00033	-0.00005	-0.00033	-0.01296

TABULATED SOURCE DATA - CASSC

DATE 13 JUL 76

(RELOAD) ( 11 APR 76 )

ARC 87-747 CASSC B C N F M V NON. RNVL

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000  
 ATURON = .000 BDFLAP = -11.700  
 SPOBRK = -5.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

REFERENCE DATA

REF = 2.4210 SQ.FT. WWP = 32.3010 IN.  
 LREF = 14.2440 IN. YWP = .0000 IN.  
 BREF = 20.1004 IN. ZWP = 11.2500 IN.  
 SCALE = .0300 SCALE

RUN NO. 480/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	CAF	CAB	CDP	L/D
2.498	-4.733	.24420	.17060	.12450	.27060	.01110	.10106	.02264	.14730	1.44383
2.498	-2.716	.23750	.16930	.12440	.26380	.01440	.10262	.02178	.14687	1.41512
2.498	-7.703	.23070	.16720	.12350	.25670	.01470	.10167	.02183	.14470	1.39203
2.498	.301	.23180	.16720	.12330	.25780	.01290	.10180	.02150	.14502	1.39881
2.498	1.309	.23330	.16720	.12290	.26030	.01220	.10169	.02121	.14533	1.41370
2.498	3.326	.23030	.16840	.12470	.25650	.01310	.10373	.02097	.14669	1.38207
2.498	5.350	.23940	.16970	.12440	.26580	.01160	.10257	.02183	.14717	1.42388
2.498	7.356	.24540	.17050	.12410	.27180	.00860	.10168	.02242	.14733	1.43279
2.498	9.382	.25310	.16900	.12130	.27920	.00260	.09823	.02305	.14524	1.51182
GRADIENT		-.00158	-.00034	-.00007	-.00182	.00008	.00003	-.00019	-.00016	-.00648

RUN NO. 484/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	CAF	CAB	CDP	L/D
3.001	-4.712	.20330	.14680	.10840	.22790	.01340	.09318	.01522	.13134	1.45516
3.001	-2.668	.19950	.14540	.10800	.22200	.01340	.09266	.01534	.12980	1.37930
3.001	-.631	.19050	.14310	.10730	.21280	.01370	.09273	.01457	.12828	1.35874
3.001	.398	.19140	.14260	.10650	.21360	.01470	.09173	.01477	.12742	1.35135
3.001	1.416	.19290	.14370	.10730	.21520	.01370	.09282	.01448	.12878	1.35137
3.001	3.480	.19660	.14530	.10820	.21920	.01390	.09294	.01526	.12959	1.36275
3.001	5.518	.19750	.14530	.10820	.22010	.00950	.09291	.01509	.12971	1.36951
3.001	7.575	.20320	.14550	.10820	.22770	.00510	.09061	.01559	.12877	1.42791
3.001	9.620	.20820	.14410	.10480	.23050	-.00040	.08917	.01563	.12784	1.45776
GRADIENT		-.00126	-.00027	-.00008	-.00127	.00035	-.00004	-.00004	-.00026	-.00571

RUN NO. 488/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	CAF	CAB	CDP	L/D
3.496	-4.918	.17170	.12730	.09590	.15110	.00650	.08616	.00974	.11804	1.34410
3.496	-2.804	.16340	.12670	.09670	.14870	.01190	.08714	.00956	.11734	1.28493
3.496	-.690	.16560	.12620	.09580	.14900	.01320	.08679	.00901	.11759	1.35904
3.496	.390	.16450	.12580	.09580	.14830	.01300	.08654	.00906	.11713	1.30355
3.496	1.408	.15900	.12470	.09550	.14810	.01400	.08667	.00883	.11628	1.27073
3.496	3.533	.15980	.12590	.09650	.14900	.01290	.08745	.00903	.11719	1.26428
3.496	5.628	.16080	.12550	.09500	.14800	.00840	.08551	.00949	.11686	1.33832
3.496	7.737	.17500	.12640	.09430	.14820	-.00040	.08451	.00937	.11736	1.38143
3.496	9.832	.17170	.12410	.09270	.14930	-.00040	.08289	.00981	.11471	1.37900
GRADIENT		-.00132	-.00023	-.00001	-.00134	.00073	-.00000	-.00010	-.00014	-.00790

DATE 15 JUL 74

## TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C H F M V NOM. RN/L

(REL041) ( 11 APR 74 )

## REFERENCE DATA

SEEF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LRREF = 14.2440 IN. YMRP = .0000 IN.  
 BRREF = 28.1064 IN. ZMRP = 11.2500 IN.  
 SCALE = .0350 SCALE

ALPHA = 20.000 ELEVON = .000  
 AIRLON = .000 BDFLAP = -11.700  
 SPDRK = 85.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 481/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLC	Q	CAF	CAB	CD	L/D
2.498	-4.732	.57330	.32000	.10010	.64890	-.01590	321.90000	.07729	.02281	.29456	1.82130
2.498	-2.732	.56470	.31950	.10260	.64070	-.00890	321.90000	.08081	.02179	.29507	1.79680
2.498	-.719	.56030	.32120	.10560	.63710	-.00460	321.90000	.08282	.02278	.29573	1.77390
2.498	.276	.55980	.32020	.10480	.63630	-.00420	321.90000	.08109	.02371	.29383	1.77814
2.498	1.295	.56260	.32200	.10540	.63950	-.00470	321.90000	.08231	.02309	.29607	1.77768
2.498	3.324	.56800	.32140	.10300	.64440	-.00760	321.90000	.08040	.02260	.29591	1.79803
2.498	5.343	.57380	.32090	.10060	.64970	-.01500	321.90000	.07657	.02403	.29416	1.81886
2.498	7.374	.57820	.31890	.09790	.65130	-.01950	321.90000	.07345	.02445	.29177	1.83807
2.498	9.390	.58220	.32000	.09690	.65720	-.02380	321.90000	.07313	.02377	.29350	1.85043
GRADIENT	-.00073	.00025	.00045	.00045	-.00061	.00109	-.00000	.00038	.00006	.00015	-.00349

RUN NO. 485/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLC	Q	CAF	CAB	CD	L/D
3.001	-4.710	.50930	.28060	.08690	.57500	-.01050	288.20000	.07093	.01597	.26332	1.83458
3.001	-2.686	.50330	.28140	.08950	.56960	-.00660	288.20000	.07397	.01553	.26432	1.80928
3.001	-.623	.49950	.28180	.09100	.56630	-.00220	288.20000	.07570	.01530	.26482	1.79451
3.001	.380	.49390	.27960	.09070	.56020	.00000	288.20000	.07554	.01516	.26259	1.78953
3.001	1.414	.49500	.28040	.09090	.56160	.00020	288.20000	.07530	.01560	.26284	1.78972
3.001	3.475	.50100	.28150	.08970	.56760	-.00360	288.20000	.07410	.01560	.26376	1.80550
3.001	5.514	.50200	.27980	.08770	.56790	-.01170	288.20000	.07275	.01495	.26260	1.82059
3.001	7.578	.50660	.28030	.08650	.57250	-.01340	288.20000	.07068	.01582	.26222	1.83474
3.001	9.623	.51090	.28170	.08610	.57700	-.01550	288.20000	.06915	.01695	.26233	1.84276
GRADIENT	-.00134	.00001	.00036	.00036	-.00124	.00107	.00000	.00040	-.00004	-.00005	-.00405

RUN NO. 489/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLC	Q	CAF	CAB	CD	L/D
3.496	-4.915	.46290	.25160	.07800	.52100	-.00740	253.80000	.06882	.00918	.24286	1.84065
3.496	-2.811	.45990	.25200	.07930	.51840	-.00490	253.80000	.06989	.00941	.24298	1.82675
3.496	-.711	.44990	.24960	.08050	.50820	.00120	253.80000	.07104	.00946	.24057	1.80397
3.496	.338	.45640	.25140	.07990	.51490	-.00010	253.80000	.07070	.00920	.24254	1.81745
3.496	1.394	.44910	.24960	.08070	.50740	.00020	253.80000	.07088	.00982	.24015	1.80131
3.496	3.512	.45210	.24960	.07960	.51070	-.00180	253.80000	.07019	.00941	.24046	1.81392
3.496	5.534	.45350	.24820	.07780	.51110	-.00650	253.80000	.06811	.00969	.23881	1.82994
3.496	7.746	.45620	.24860	.07730	.51360	-.00990	253.80000	.06762	.00968	.23927	1.83750
3.496	9.868	.45690	.24930	.07780	.51460	-.00810	253.80000	.06750	.01030	.23943	1.83435
GRADIENT	-.00147	-.00028	.00022	.00022	-.00148	.00102	.00000	.00018	-.00004	-.00033	-.00366

DATE 15 JUL 74 TABULATED SOURCE DATA - QAS3C

(RELOAD) ( 11 APR 74 )

ARC 87-747 QAS3C B C M F W V NOM. RN/L

REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1024 IN. YMRP = 11.2500 IN.  
 SCALE = .0350 SCALE

BETA = .000 ELEVON = 10.000  
 AILRON = 5.000 BDFLAP = -11.700  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 5.000

PARAMETRIC DATA

RUN NO. 410/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.499	-1.567	-0.03380	.13340	.13310	-.03510	-.01380	324.90000	.11158	.02152	.11192	-.25316
2.499	-1.105	-0.01440	.13210	.13200	-.01460	-.01550	324.90000	.11083	.02117	.11083	-.10876
2.499	1.422	-0.02360	.13090	.13030	.02690	-.01960	324.90000	.10857	.02173	.10921	-.18070
2.499	3.442	.07720	.13400	.12910	.08510	-.02200	324.90000	.10799	.02111	.11290	.57619
2.499	5.466	.13310	.13910	.12580	.14570	-.02510	324.90000	.10354	.02226	.11695	.95649
2.499	7.497	.19700	.14960	.12260	.21480	-.02810	324.90000	.10017	.02243	.12734	1.31682
2.499	9.530	.25780	.16380	.11890	.28130	-.03310	324.90000	.09695	.02195	.14213	1.57315
2.499	12.580	.35630	.19680	.11450	.39060	-.03650	324.90000	.09282	.02168	.17567	1.81016
2.499	15.640	.45620	.24370	.11180	.50550	-.04540	324.90000	.08954	.02226	.22237	1.87101
2.499	18.690	.55550	.30240	.10840	.62310	-.05280	324.90000	.08603	.02237	.28116	1.83726
2.499	21.740	.65980	.37560	.10450	.75200	-.06260	324.90000	.08185	.02265	.35456	1.75665
2.499	24.800	.75810	.46170	.10110	.88190	-.07600	324.90000	.07807	.02303	.44078	1.64214
2.499	27.340	.83650	.54270	.09790	.99230	-.08470	324.90000	.07472	.02318	.52211	1.54136
GRADIENT		.02700	.00020	-.00095	.02929	-.10020	.00000	-.00090	-.00005	.00026	.20200

RUN NO. 411/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.002	-1.609	-0.03080	.11830	.11790	-.03200	-.01900	291.50000	.10340	.01450	.10374	-.26003
3.002	-1.151	-0.02690	.11750	.11740	-.02720	-.01870	291.50000	.10418	.01322	.10425	-.22891
3.002	1.369	.05080	.11510	.11510	.00350	-.01740	291.50000	.10175	.01335	.10181	.00651
3.002	3.386	.04670	.11550	.11250	.05350	-.01970	291.50000	.09829	.01421	.10128	.40499
3.002	5.414	.10010	.11900	.10990	.11090	-.02050	291.50000	.09493	.01407	.10497	.84151
3.002	7.435	.14940	.12610	.10570	.16440	-.02370	291.50000	.09150	.01420	.11201	1.18444
3.002	9.465	.21770	.14060	.10290	.23790	-.02630	291.50000	.08669	.01421	.12661	1.54842
3.002	12.500	.30400	.16940	.09970	.33350	-.03040	291.50000	.08528	.01442	.15544	1.79340
3.002	15.540	.40040	.21290	.09790	.44280	-.03490	291.50000	.08239	.01551	.19801	1.88016
3.002	18.590	.49340	.26640	.09520	.55260	-.04490	291.50000	.08017	.01503	.25216	1.85218
3.002	21.640	.58850	.33310	.09260	.66980	-.05150	291.50000	.07689	.01571	.31848	1.76668
3.002	24.690	.68610	.41410	.08960	.79640	-.06360	291.50000	.07434	.01526	.40021	1.65712
3.002	27.230	.76400	.49280	.08860	.90480	-.07210	291.50000	.07421	.01439	.47999	1.55035
GRADIENT		.01973	-.00071	-.00137	.02173	-.00015	.00000	-.00141	.00004	-.00074	.16945

DATE 15 JUL 74

TABULATED SOURCE DATA - Q455C

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ARC 87-747 Q455C B C H F M V NON. RV/L

(RELO42) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 10.000  
AILRON = 5.000 SDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = 15.000 ELEV-R = 5.000

RUN NO. 412/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLFWO	Q	CAF	CAB	CDF	L/D
3.498	-0.857	-0.4400	.10700	.10630	-.04560	-.02240	255.000000	.09698	.00932	.09765	-41137
3.498	-0.392	-0.0980	.10550	.10520	-.04050	-.02130	255.000000	.09708	.00812	.09735	-37714
3.498	1.119	-0.09520	.10230	.10230	-.00320	-.02020	255.000000	.09300	.00930	.09292	-05084
3.498	3.137	.03210	.10150	.09960	.03760	-.02050	255.000000	.09110	.00850	.09302	.31616
3.498	5.153	.07610	.10380	.09660	.08510	-.01790	255.000000	.08791	.00869	.09520	.73257
3.498	7.169	.13450	.11150	.09390	.14740	-.02090	255.000000	.08396	.00994	.10170	1.20588
3.498	9.202	.18340	.12240	.09150	.20060	-.02180	255.000000	.08298	.00852	.11399	1.49823
3.498	12.220	.26470	.14880	.08940	.29520	-.02490	255.000000	.07949	.00991	.13912	1.77891
3.498	15.280	.35240	.18690	.08750	.38920	-.03030	255.000000	.07830	.00920	.17797	1.88624
3.498	18.310	.45080	.25920	.08540	.50310	-.04000	255.000000	.07507	.01033	.22932	1.88517
3.498	21.320	.53850	.30070	.08410	.61100	-.04320	255.000000	.07494	.00916	.29224	1.79023
3.498	24.390	.63390	.37830	.08290	.73350	-.05080	255.000000	.07214	.01076	.36860	1.67498
3.498	26.920	.70900	.45180	.08180	.83670	-.05990	255.000000	.07199	.00981	.44300	1.56946
GRADIENT	.01964	-.00135	-.00135	-.00167	.02142	.00042	.00000	-.00160	-.00056	-.00128	.18811

DATE 15 JUL 74

TABULATED SOURCE DATA - Q453C

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(RELOAD3) ( 11 APR 74 )

ARC 87-747 Q453C B C M F W V NON. RNVL

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1054 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

BETA =  
AIRLON =  
SPDRK =  
ELEV-L =

.000 ELEVON = .000  
15.000 BDFLAP = -11.700  
55.000 RUDDER = .000  
15.000 ELEV-R = -15.050

## PARAMETRIC DATA

RUN NO. 413/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
2.499	-.572	-.06600	.13600	.13300	-.06730	.00390	324.50000	.11607	.01923	.11673	-.48503
2.499	-.108	-.05010	.13430	.13420	-.05030	.00210	324.50000	.11448	.01972	.11457	-.37266
2.499	1.411	-.00940	.13220	.13240	-.00610	-.00060	324.50000	.11227	.02013	.11208	-.07078
2.499	3.439	.04940	.13280	.12960	.05730	-.00310	324.50000	.10900	.02060	.11224	.37215
2.499	5.466	.10670	.13710	.12630	.11930	-.00860	324.50000	.10495	.02135	.11584	.77852
2.499	7.492	.16700	.14540	.12230	.18450	-.01240	324.50000	.10122	.02108	.12441	1.14910
2.499	9.527	.23080	.15800	.11760	.25370	-.01450	324.50000	.09642	.02118	.13708	1.46055
2.499	12.570	.32900	.18920	.11300	.36230	-.01750	324.50000	.09031	.02269	.16699	1.73958
2.499	15.630	.42780	.23400	.10000	.47510	-.02500	324.50000	.08837	.02163	.21311	1.82911
2.499	18.690	.52920	.29150	.10660	.59470	-.03080	324.50000	.08414	.02246	.27027	1.81506
2.499	21.750	.62620	.35900	.10160	.71460	-.03910	324.50000	.07905	.02255	.33800	1.74455
2.499	24.800	.72020	.44060	.09800	.83860	-.04780	324.50000	.07451	.02349	.41939	1.63406
2.499	27.340	.79970	.51850	.09330	.94850	-.05720	324.50000	.07024	.02306	.49801	1.54235
GRADIENT	.02846	-.00073	-.00137	-.00137	.03075	-.00216	.00000	-.00168	.00031	-.00102	.21181

RUN NO. 414/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
3.001	-.612	-.05550	.12020	.11960	-.05680	-.01020	291.20000	.10707	.01253	.10767	-.46189
3.001	-.104	-.04860	.11890	.11880	-.04880	-.00690	291.20000	.10618	.01262	.10627	-.45866
3.001	1.358	-.02570	.11560	.11620	-.02300	-.00650	291.20000	.10306	.01314	.10248	-.22269
3.001	3.422	.03030	.11500	.11300	.03710	-.01050	291.20000	.09950	.01350	.10154	.26335
3.001	5.399	.08280	.11780	.10940	.09350	-.01020	291.20000	.09528	.01412	.10366	.70334
3.001	7.433	.13540	.12420	.10570	.15030	-.01070	291.20000	.09111	.01459	.10978	1.08939
3.001	9.447	.18760	.13490	.10220	.20740	-.01320	291.20000	.08828	.01392	.12113	1.39269
3.001	12.510	.28030	.16290	.09840	.30890	-.01530	291.20000	.08392	.01448	.14884	1.71960
3.001	15.580	.37060	.20210	.09320	.41130	-.02080	291.20000	.08077	.01443	.18827	1.83320
3.001	18.570	.46760	.25500	.09280	.52450	-.02820	291.20000	.07815	.01465	.24112	1.83386
3.001	21.640	.55920	.31900	.09030	.63740	-.03190	291.20000	.07542	.01488	.30516	1.75295
3.001	24.730	.65200	.39660	.08740	.75810	-.03940	291.20000	.07189	.01551	.38244	1.64429
3.001	27.280	.73310	.47400	.08530	.86880	-.04520	291.20000	.06999	.01531	.46041	1.54651
GRADIENT	.02129	-.00129	-.00129	-.00165	.02329	-.00032	.00000	-.00189	.00025	-.00152	.10013

(REL043) ( 11 APR 74 )

ARC 67-747 QAS3C B C H F M V NOM. RN/L

REFERENCE DATA

SREF = 2.4210 50.FT. WREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 26.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0320 SCALE

BETA = .000 ELEVON = .000  
 AIRRON = 15.000 BDFLAP = -11.700  
 SPORRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = -15.000

PARAMETRIC DATA

RUN NO. 415/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	CAF	CAB	CD	L/D
3.496	-8.62	-0.6960	.10920	.10620	-.07120	-.01240	.09883	.00937	.09989	-.63668
3.496	-3.74	-.06740	.10750	.10700	-.06810	-.01260	.09852	.00848	.09896	-.62732
3.496	1.100	-.03170	.10350	.10410	-.02970	-.01260	.09583	.00827	.09524	-.30618
3.496	3.136	.00990	.10090	.10020	.01350	-.01190	.09160	.00866	.09231	.09906
3.496	5.150	.05370	.10100	.09640	.06460	-.00860	.08640	.01000	.09185	.54696
3.496	7.191	.10720	.10820	.09390	.11990	-.01150	.08486	.00904	.09920	.99106
3.496	9.156	.15500	.11720	.09100	.17170	-.01240	.08182	.00918	.10210	1.32313
3.496	12.180	.23880	.14200	.08840	.26340	-.01460	.07908	.00932	.13287	1.68203
3.496	15.250	.32480	.17770	.08600	.36010	-.01730	.07661	.00939	.16863	1.82791
3.496	18.310	.41550	.22560	.08370	.46530	-.02180	.07434	.00936	.21676	1.84119
3.496	21.340	.50640	.28570	.08190	.57560	-.02660	.07132	.01058	.27590	1.77196
3.496	24.370	.59450	.35760	.08040	.69910	-.02890	.07044	.00996	.34851	1.66265
3.496	26.970	.78880	.48960	.07860	.92310	-.07990	.06787	.01073	.48005	1.61118
GRADIENT	.02072	-.00206	-.00206	-.00198	.02232	.00014	-.00186	-.00012	-.00193	.19226



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TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F M V NOM. RN/L

(REL044) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ. FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1054 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
 AILRON = 15.000 BDFLAP = -11.700  
 SPD8RK = 55.000 RUDDER = .000  
 ELEV-L = 5.000 ELEV-R = -25.000

RUN NO. 526/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.499	-.507	-.07890	.13760	.13690	-.08010	.02310	320.30000	.11790	.01900	.11861	-.57329
2.499	.183	-.06580	.13520	.13540	-.06830	.02080	320.30000	.11557	.01983	.11536	-.48622
2.499	1.202	-.04030	.13260	.13340	-.03760	.01900	320.30000	.11386	.01954	.11305	-.30464
2.499	3.234	.01920	.13160	.13030	.02660	.01280	320.30000	.11191	.01971	.11191	.14596
2.499	5.234	.07740	.13360	.12590	.08930	.00720	320.30000	.10541	.02049	.11315	.57954
2.499	7.289	.13710	.13940	.12090	.15370	.00430	320.30000	.10058	.02032	.11927	.98347
2.499	9.311	.19750	.15070	.11680	.21920	.00430	320.30000	.09543	.02137	.12964	1.30976
2.499	12.360	.29870	.17810	.11050	.32990	.00270	320.30000	.08929	.02071	.15784	1.67751
2.499	15.420	.39960	.21920	.10510	.44350	-.00430	320.30000	.08403	.02107	.19893	1.82261
2.499	18.460	.49220	.27030	.10050	.55250	-.00730	320.30000	.07856	.02194	.24946	1.82130
2.499	21.520	.59140	.33580	.09540	.67330	-.01320	320.30000	.07233	.02307	.31428	1.76142
2.499	24.540	.68410	.41200	.09010	.79350	-.01840	320.30000	.06620	.02390	.39027	1.66047
2.499	27.	.77590	.49750	.08390	.91780	-.02440	320.30000	.06109	.02281	.47730	1.55927
GRADIENT		.02662	-.00152	-.00175	.02891	-.00270	.00000	-.00187	.00012	-.00163	.19581

RUN NO. 527/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.001	-.580	-.07380	.12220	.12150	-.07510	.00570	287.80000	.10797	.01353	.10873	-.60421
3.001	.142	-.05920	.11970	.11980	-.05890	.00530	287.80000	.10735	.01245	.10720	-.49474
3.001	1.162	-.03780	.11690	.11760	-.03540	.00500	287.80000	.10499	.01261	.10425	-.32328
3.001	3.180	.00710	.11470	.11410	.01350	.00650	287.80000	.10073	.01337	.10133	.06235
3.001	5.205	.05820	.11500	.10920	.06840	.00350	287.80000	.09608	.01312	.10189	.50638
3.001	7.218	.10890	.11930	.10470	.12300	.00210	287.80000	.09020	.01450	.10494	.91239
3.001	9.232	.16610	.12910	.10070	.18470	.00390	287.80000	.08645	.01425	.11502	1.28680
3.001	12.280	.25490	.15330	.09560	.28160	.00150	287.80000	.08124	.01436	.13927	1.66219
3.001	15.330	.34220	.18900	.09180	.38000	-.00170	287.80000	.07727	.01453	.17498	1.81566
3.001	18.380	.43800	.23750	.08730	.49060	-.00620	287.80000	.07184	.01546	.22287	1.84408
3.001	21.420	.52550	.29600	.08360	.59730	-.00830	287.80000	.06858	.01502	.28198	1.77562
3.001	24.470	.62050	.37000	.07980	.71800	-.01080	287.80000	.06495	.01485	.35652	1.67672
3.001	27.330	.70020	.44750	.07610	.82750	-.01580	287.80000	.06022	.01588	.43342	1.56460
GRADIENT		.02156	-.00193	-.00195	.02362	-.00025	.00000	-.00200	.00005	-.00198	.17858

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TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F M V NOM. RNVL

(REL044) ( 11 APR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. WREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2900 IN.  
 SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
 AILRON = 15.000 BDFLAP = -1.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 5.000 ELEV-R = -25.000

RUN NO. 528/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	CL	CD	CA	CN	CLMFLD	Q	CAF	CAB	CDF	L/D
3.496	-.795	-.07090	.11040	.10940	-.07240	-.00280	252.50000	.09982	.00958	.10082	-.64203
3.496	-.098	-.05690	.10760	.10750	-.05910	.00010	252.50000	.10017	.00733	.10027	-.54755
3.496	.905	-.04560	.10460	.10530	-.04410	.00050	252.50000	.09736	.00794	.09665	-.43749
3.496	2.926	-.00150	.10090	.10080	.00360	.00090	252.50000	.09292	.00788	.09298	-.01537
3.496	4.947	.04540	.10040	.09610	.05390	.00010	252.50000	.08733	.00877	.09165	.45236
3.496	6.960	.09180	.10400	.09220	.10370	.00010	252.50000	.08366	.00854	.09561	.88161
3.496	8.987	.14430	.11290	.08890	.16010	-.00020	252.50000	.07947	.00943	.10351	1.27859
3.496	12.020	.22500	.13450	.08470	.24810	-.00340	252.50000	.07556	.00914	.12557	1.67289
3.496	15.050	.31090	.16760	.08110	.34370	-.00440	252.50000	.07265	.00845	.15940	1.85513
3.496	18.090	.39580	.21130	.07800	.44190	-.00220	252.50000	.06834	.00966	.20218	1.87282
3.496	21.120	.47890	.26540	.07500	.54240	-.00380	252.50000	.06582	.00918	.25684	1.80460
3.496	24.170	.56850	.33430	.07220	.65550	-.00590	252.50000	.06322	.00898	.32606	1.70068
3.496	27.060	.65660	.41350	.06950	.77280	-.01000	252.50000	.05917	.01033	.40426	1.58804
GRADIENT	.02034	-.00172	-.00229	-.00229	.02207	.00035	-.00000	-.00228	-.00001	-.00171	.19211

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C N F M V NOM. RN/L

(RELOAD) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LBREF = 14.2440 IN. YMRP = .0000 IN.  
 BRREF = 28.1954 IN. ZMRP = 11.2500 IN.  
 SCALE = .0350 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AILRON = 5.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -15.000 ELEV-R = -25.000

RUN NO. 500/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/C
2.498	-.570	-.10770	.14070	.13960	-.10910	.04410	315.00000	.12223	.01737	.12331	-.76561
2.498	.122	-.09540	.13730	.13750	-.08510	.04120	315.00000	.11970	.01780	.11950	-.69479
2.498	1.141	-.06750	.13430	.13560	-.06460	.03840	315.00000	.11712	.01848	.11581	-.50107
2.498	3.163	-.01200	.13110	.13160	-.00460	.03360	315.00000	.11214	.01946	.11170	-.09192
2.498	5.185	.04360	.13080	.12650	.05520	.02950	315.00000	.10693	.01937	.11148	.33310
2.498	7.217	.10680	.13540	.12990	.12290	.02560	315.00000	.10065	.02025	.11529	.78842
2.498	9.245	.16750	.14510	.11650	.18860	.02630	315.00000	.09594	.02036	.12499	1.15423
2.498	12.300	.26760	.17030	.10940	.29780	.02300	315.00000	.08954	.01986	.15092	1.57142
2.498	15.350	.36700	.20910	.10450	.40920	.02090	315.00000	.08363	.02087	.18897	1.75491
2.498	18.400	.45970	.25720	.09900	.51740	.01750	315.00000	.07711	.02189	.23648	1.78694
2.498	21.450	.55670	.31900	.09350	.63480	.01490	315.00000	.07020	.02310	.29747	1.74531
2.498	24.510	.65160	.39280	.08710	.75600	.01170	315.00000	.06406	.02304	.37191	1.65889
2.498	27.580	.73770	.47220	.08200	.87230	.00850	315.00000	.05692	.02308	.45170	1.56245
2.498	GRADIENT	.02614	-.00244	-.00206	.02843	-.00273	.00000	-.00264	.00056	-.00296	.18522

RUN NO. 501/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFO	Q	CAF	CAB	CDF	L/C
3.000	-.612	-.09350	.12430	.12350	-.09480	.02450	284.20000	.11157	.01173	.11258	-.75199
3.000	.580	-.08250	.12150	.12170	-.08230	.02290	284.20000	.10979	.01192	.10967	-.67828
3.000	1.095	-.06040	.11830	.11940	-.05810	.02010	284.20000	.10741	.01199	.10828	-.51046
3.000	3.111	-.01220	.11450	.11500	-.00600	.02130	284.20000	.10175	.01325	.10127	-.15683
3.000	5.132	.03800	.11360	.10990	.04810	.01870	284.20000	.09707	.01283	.10098	.33475
3.000	7.157	.08610	.11660	.10500	.10000	.01640	284.20000	.09189	.01311	.10363	.73850
3.000	9.178	.13600	.12460	.10080	.15690	.01950	284.20000	.08748	.01332	.11139	1.11465
3.000	12.220	.23010	.14700	.09500	.25600	.01770	284.20000	.08119	.01381	.13353	1.56489
3.000	15.260	.32060	.18140	.09050	.33720	.01720	284.20000	.07618	.01432	.16751	1.76913
3.000	18.310	.40450	.22460	.08610	.45460	.01740	284.20000	.07112	.01498	.21033	1.80148
3.000	21.350	.49210	.28020	.08180	.56040	.01550	284.20000	.06636	.01544	.26583	1.75642
3.000	24.400	.58500	.34980	.07690	.67720	.01460	284.20000	.06141	.01549	.33568	1.67230
3.000	27.270	.68580	.42470	.07240	.78640	.01280	284.20000	.05747	.01493	.41140	1.56787
3.000	GRADIENT	.02218	-.00256	-.00223	.02419	-.00082	.00000	-.00263	.00041	-.00297	.17698

DATE 15 JUL 74

TABULATED SOURCE DATA - Q153C

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ARC 87-747 Q153C B C H F M V NON. RM/L

(REL045) ( 11 APR 74 )

REFERENCE DATA

SREF = 2.4210 54.47. 198P = 32.3010 IN.  
 LREF = 14.2440 IN. 198P = .0000 IN.  
 BREF = 28.1004 IN. 298P = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = -20.000  
 AILRON = 5.000 BDFLAP = -11.700  
 SPORRK = 55.000 RUCKER = .000  
 ELEV-L = -15.000 ELEV-R = -25.000

PARAMETRIC DATA

RUN NO. 502/ 0 RM/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

INCH	ALPHA	CL	CD	CA	CN	CLAPLO	Q	CAF	CAB	CDP	L/D
3.496	-.878	-.09410	.11370	.11220	-.09580	.01150	248.10000	.10462	.00758	.10607	-.82769
3.496	-.165	-.06670	.11040	.11010	-.08710	.01190	248.10000	.10240	.00770	.10265	-.78643
3.496	.845	-.06120	.10660	.10750	-.05960	.01260	248.10000	.09961	.00789	.09872	-.57387
3.496	2.861	-.01980	.10160	.10240	-.01470	.01060	248.10000	.09454	.00786	.09369	-.19493
3.496	4.875	.02170	.09950	.09770	.03010	.01300	248.10000	.08901	.00869	.09124	.21709
3.496	6.896	.06640	.10160	.09260	.06020	.01180	248.10000	.08457	.00823	.09358	.67294
3.496	8.918	.12950	.11060	.08940	.14490	.01410	248.10000	.08085	.00855	.10234	1.16706
3.496	11.950	.20200	.12920	.08460	.22430	.01320	248.10000	.07578	.00882	.12058	1.56275
3.496	14.980	.28550	.16050	.08130	.31750	.01620	248.10000	.07264	.00866	.15218	1.77824
3.496	18.020	.36860	.20100	.07710	.41270	.01690	248.10000	.06694	.01016	.19133	1.83398
3.496	21.060	.45690	.25490	.07370	.51800	.01600	248.10000	.06410	.00960	.24596	1.79240
3.496	24.100	.54040	.31860	.07030	.62350	.01650	248.10000	.06042	.00988	.30975	1.69543
3.496	26.940	.62060	.39070	.06710	.75020	.01990	248.10000	.05733	.00977	.38193	1.58857
3.496	GRADIENT	.02065	-.00236	-.00251	.02241	.00012	.00990	-.00268	.00017	-.00254	.18724

ARC 07-747 QAS3C B C M F M V NOM. RM/L

(REL046) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4270 54. FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 20.1024 IN. ZREF = 11.2500 IN.  
 SCALE = .0020 SCALE

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AILERON = .000 BDFLAP = -11.700  
 SPOBRK = 85.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 431/ 0 RM/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDX	L/D
2.496	-4.645	-.04880	.14250	.14260	-.04860	.02190	320.80000	.12115	.02145	.12115	-.34081
2.496	-2.672	-.05000	.14500	.14510	-.04960	.02410	320.60000	.12406	.02104	.12406	-.34183
2.496	.297	-.04560	.14520	.14540	-.04540	.02950	320.60000	.12480	.02060	.12480	-.31224
2.496	3.374	-.05620	.14640	.14650	-.05590	.02750	320.60000	.12637	.02013	.12637	-.30157
2.496	5.430	-.05650	.14560	.14570	-.05620	.02500	320.60000	.12503	.02067	.12503	-.30572
2.496	7.121	-.05220	.14530	.14540	-.05200	.02330	320.60000	.12406	.02134	.12406	-.35763
GRADIENT		-.00070	.00042	.00043	-.00070	.00080	-.00000	.00059	-.00016	.00059	-.00375

RUN NO. 434/ 0 RM/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDX	L/D
3.001	-4.629	-.04490	.12630	.12650	-.04490	.00670	290.80000	.11180	.01450	.11180	-.35550
3.001	-2.617	-.05460	.12770	.12770	-.05470	.01240	290.80000	.11332	.01438	.11332	-.42835
3.001	.404	-.05450	.12790	.12800	-.05430	.01660	290.80000	.11426	.01374	.11426	-.42422
3.001	3.321	-.05600	.13030	.13040	-.05570	.01700	290.80000	.11639	.01401	.11639	-.42715
3.001	5.604	-.05460	.13060	.13090	-.05450	.01470	290.80000	.11670	.01420	.11670	-.41635
3.001	7.169	-.05610	.13130	.13140	-.05780	.01320	290.80000	.11668	.01472	.11668	-.43988
GRADIENT		-.00112	.00044	.00046	-.00108	.00123	-.00000	.00053	-.00008	.00053	-.00700

RUN NO. 437/ 0 RM/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDX	L/D
3.496	-4.834	-.04570	.11500	.11490	-.04600	.00170	253.00000	.10534	.00956	.10534	-.40035
3.496	-2.760	-.05510	.11520	.11500	-.05540	.00480	253.00000	.10563	.00937	.10563	-.48174
3.496	.355	-.05640	.11500	.11480	-.05670	.00650	253.00000	.10514	.00966	.10514	-.51132
3.496	3.571	-.05750	.11760	.11770	-.05760	.00660	253.00000	.10849	.00921	.10849	-.48938
3.496	5.714	-.05780	.11970	.11950	-.05820	.00840	253.00000	.10949	.01001	.10949	-.48703
3.496	7.453	-.06100	.12060	.12060	-.06140	.01130	253.00000	.11108	.00952	.11108	-.50912
GRADIENT		-.00126	.00030	.00030	-.00126	.00055	.00000	.00033	-.00003	.00033	-.00965

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## TABULATED SOURCE DATA - QASXC

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ARC 87-747 QASXC B C M F W V NOM. RW/L

(REL047) ( 11 APR 74 )

## REFERENCE DATA

SHEP = 2.4210 50 FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREP = 28.1704 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA = 10.000 ELEVON = .900  
 AILRON = .000 BDFLAP = -11.700  
 SPDRBK = 85.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .050

## PARAMETRIC DATA

RUN NO. 432/ 0 RW/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	CAF	CAB	CDP	L/D
2.496	-4.736	.25270	.17230	.12450	.27940	.00640	.10242	.02208	.14938	1.48158
2.496	-2.724	.24720	.17210	.12320	.27400	.01140	.10303	.02217	.14905	1.45190
2.496	.299	.23740	.17030	.12320	.26400	.01150	.10347	.02173	.14774	1.40858
2.496	3.328	.24570	.17550	.12690	.27270	.01050	.10539	.02151	.15114	1.43055
2.496	5.344	.24780	.17460	.12760	.27500	.01140	.10572	.02188	.15186	1.43393
2.496	7.353	.25000	.17570	.12830	.27740	.01100	.10562	.02248	.15238	1.43769
2.496	9.375	.25410	.17450	.12820	.28110	.00330	.10305	.02315	.15030	1.47269
GRADIENT	-.00106	.00008	.00027	-.00103	.00041	-.00000	.00035	-.00008	.00016	-.00691

RUN NO. 435/ 0 RW/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	CAF	CAB	CDP	L/D
3.001	-4.720	.20750	.14650	.10760	.23010	.00660	.09102	.01658	.12960	1.42487
3.001	-2.676	.20230	.14560	.10760	.22480	.00800	.09260	.01500	.13023	1.39792
3.001	.394	.19840	.14590	.10850	.22110	.01430	.09354	.01496	.13051	1.36941
3.001	3.463	.20310	.14930	.11090	.22640	.01360	.09614	.01476	.13399	1.37147
3.001	5.511	.20460	.15060	.11200	.22840	.00950	.09612	.01568	.13432	1.3724
3.001	7.562	.20940	.15040	.11070	.23280	.00510	.09485	.01585	.13383	1.40548
3.001	9.607	.21100	.14990	.10980	.23440	.00200	.09312	.01668	.13241	1.42287
GRADIENT	-.00056	.00034	.00040	-.00047	.00096	.00000	.00059	-.00019	.00050	-.00663

RUN NO. 438/ 0 RW/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	CAF	CAB	CDP	L/C
3.496	-4.917	.18540	.12870	.09480	.20590	.00310	.08405	.01055	.11851	1.44489
3.496	-2.809	.17750	.12890	.09630	.19710	.00930	.08601	.01029	.11893	1.37439
3.496	.352	.17480	.12860	.09650	.19440	.01210	.08653	.00997	.11857	1.35638
3.496	3.519	.16890	.13040	.09930	.18890	.01390	.08902	.01028	.12047	1.29246
3.496	5.634	.17320	.13130	.09940	.19320	.00940	.08925	.01020	.12139	1.31623
3.496	7.739	.17510	.13040	.09930	.19500	.00620	.08797	.01033	.12050	1.33903
3.496	9.832	.17260	.12940	.09770	.19230	.00420	.08653	.01117	.11860	1.33026
GRADIENT	-.00189	.00017	.00050	-.00183	.00119	.00000	.00054	-.00004	.00021	-.01639

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## TABULATED SOURCE DATA - QASXC

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(REL048) ( 11 APR 74 )

ARC 87-747 QASXC B C M F M V NON. RNVL

## REFERENCE DATA

SREF = 2.4210 50-FT. YREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 20.1954 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA = 20.000 ELEVON = .000  
 ALLCON = .000 BDFLAP = -11.700  
 SPDRK = 85.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 433/ 0 RNVL = 1.72 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	CAF	CAB	COF	L/D
2.498	-4.737	.56640	.32640	.10120	.60350	-.01900	.07644	.02276	.30064	1.82665
2.498	-2.733	.57260	.32350	.10200	.60020	-.01010	.08313	.02187	.30590	1.79124
2.498	.264	.57230	.32640	.10600	.60300	-.07350	.08261	.02319	.30023	1.76505
2.498	3.324	.57640	.32680	.10420	.60410	-.00920	.08158	.02262	.30037	1.80024
2.498	5.345	.57870	.32380	.10250	.60590	-.01600	.07924	.02326	.29876	1.81274
2.498	7.374	.58000	.32390	.10280	.60280	-.02130	.07672	.02348	.29878	1.83438
2.498	9.390	.58230	.32390	.09900	.60600	-.02070	.07561	.02419	.29630	1.83266
GRADIENT	-.00097	.00002	.00033	-.00089	.00106	-.00000	.00028	.00004	-.00004	-.00295

RUN NO. 436/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	CAF	CAB	COF	L/D
3.001	-4.711	.51740	.26340	.08640	.56360	-.01660	.06975	.01665	.26515	1.84782
3.001	-2.674	.50480	.28320	.09090	.57600	-.00660	.07538	.01552	.26784	1.80642
3.001	.376	.49740	.28230	.09170	.56450	-.00410	.07562	.01608	.26413	1.78733
3.001	3.465	.50480	.28470	.09040	.57420	-.00760	.07410	.01630	.26602	1.80799
3.001	5.518	.51250	.28320	.08870	.57980	-.01170	.07262	.01608	.26655	1.82670
3.001	7.572	.51640	.28660	.08840	.58420	-.01670	.07150	.01690	.26699	1.83378
3.001	9.633	.51110	.28560	.08940	.57860	-.01590	.07292	.01648	.26642	1.82025
GRADIENT	-.00145	.00003	.00042	-.00134	.00094	.00000	.00042	-.00001	-.00006	-.00458

RUN NO. 439/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFLD	CAF	CAB	COF	L/D
3.498	-4.916	.48840	.23310	.07700	.52770	-.01290	.06597	.01103	.24248	1.83706
3.498	-2.616	.46920	.23450	.07960	.52430	-.00720	.06932	.01008	.24465	1.83163
3.498	.334	.46540	.23590	.08080	.52490	-.00210	.06956	.01124	.24489	1.82268
3.498	3.508	.46790	.23600	.08000	.52680	-.00620	.06944	.01236	.24580	1.82985
3.498	5.630	.46640	.23530	.07940	.52370	-.00630	.06900	.01080	.24464	1.83174
3.498	7.790	.46280	.23370	.07970	.52150	-.00620	.06783	.01187	.24210	1.82736
3.498	9.888	.45910	.23300	.08030	.51810	-.00910	.06828	.01122	.24230	1.81661
GRADIENT	-.00017	.00035	.00036	-.00003	.00083	.00000	.00038	-.00002	.00034	-.00294

ARC 87-747 Q153C B C H F M V NON. RAVL SEAL. CL

Q12.049) ( 11 APR 74 )

## REFERENCE DATA

REF = 2.4216 20 FT. WWP = 32.3010 IN.  
 LREF = 14.2440 IN. WWP = .0000 IN.  
 REF = 20.1004 IN. WWP = 11.2300 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 AIRLON = .000 BOFLAP = 16.300  
 SPDRON = .000 RUDLER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 321/ 0 RAVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MECH	ALPHA	CL	CD	CA	CN	CLFWD	CAF	CAB	CDF	L/C
2.498	-0.534	-0.00400	.13940	.13040	-.00610	-.04160	.11722	.02118	.11727	-.03474
2.498	.164	.01260	.13770	.13770	.01300	-.04620	.11643	.02127	.11648	.09116
2.498	1.206	.03960	.13700	.13710	.04270	-.04900	.11566	.02142	.11655	.26682
2.498	3.224	.09480	.14170	.13600	.10480	-.05240	.11428	.02172	.11998	.60319
2.498	5.256	.15610	.14920	.13430	.16910	-.06020	.11224	.02206	.12786	1.94597
2.498	7.277	.21740	.16060	.13190	.23800	-.06700	.10968	.02232	.13888	1.35252
2.498	9.307	.28130	.17720	.12930	.30820	-.07240	.10717	.02213	.15328	1.56797
2.498	12.350	.36280	.21260	.12560	.41950	-.08130	.10449	.02131	.19179	1.65286
2.498	15.400	.46720	.26420	.12020	.53990	-.09160	.10326	.02194	.24292	1.84516
2.498	18.460	.59930	.32900	.12490	.68280	-.10480	.10191	.02259	.30834	1.79676
2.498	21.520	.76070	.40460	.12930	.79030	-.11910	.10031	.02309	.38322	1.70482
2.498	24.570	.94010	.49420	.12270	.92480	-.13610	.09893	.02377	.47450	1.59243
2.498	27.450	1.14330	.59420	.12020	1.05600	-.15310	.09639	.02381	.57325	1.48638
GRADIENT	.02719	.00097	-.00062	-.00062	.02962	-.00266	-.00276	.00015	.00261	.19203

RUN NO. 321/ 0 RAVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MECH	ALPHA	CL	CD	CA	CN	CLFWD	CAF	CAB	CDF	L/C
3.001	-0.577	-.01860	.12240	.12220	-.00700	-.04040	.10816	.01404	.10836	-.15415
3.001	.142	-.00930	.12150	.12150	-.00900	-.04240	.10734	.01396	.10732	-.07657
3.001	1.150	.01440	.12060	.12040	.01660	-.04090	.10646	.01394	.10678	.11913
3.001	3.170	.04170	.12220	.11960	.06630	-.04490	.10432	.01428	.10793	.50441
3.001	5.199	.11490	.12670	.11560	.12350	-.04660	.10162	.01418	.11258	.90366
3.001	7.221	.17290	.13610	.11330	.18430	-.05120	.09892	.01438	.12180	1.26821
3.001	9.243	.23240	.15090	.11160	.23360	-.05600	.09695	.01465	.13642	1.54013
3.001	12.280	.32390	.18390	.10100	.33710	-.06580	.09325	.01487	.16901	1.77360
3.001	15.330	.41320	.22770	.10960	.46070	-.07890	.09331	.01449	.21371	1.82386
3.001	18.370	.52030	.28790	.10930	.58480	-.09370	.09464	.01466	.27405	1.80702
3.001	21.410	.61420	.35930	.10940	.70960	-.10990	.09378	.01562	.34378	1.71402
3.001	24.470	.71460	.44560	.10960	.83490	-.12160	.09441	.01519	.43176	1.60353
3.001	27.370	.80590	.54050	.10960	.96360	-.13350	.09469	.01511	.52718	1.48986
GRADIENT	.02202	.00000	-.00000	-.00000	.02412	-.00105	-.00104	.00207	-.00507	.18916



DATE 15 JUL 74

TABULATED SOURCE DATA - Q153C

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ARC 87-747 Q153C B C N F M V MON. RVNL SEAL.EL

(REL049) ( 11 APR 74 )

REFERENCE DATA

SHEP = 2.4210 SQ.FT. SHEP = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 SHEP = 29.1024 IN. ZREF = 11.2500 IN.  
 SCALE = .0000 SCALE

BETA =  
 AILRON =  
 SPDRK =  
 ELEV-L =

PARAMETRIC DATA

.000 ELEVON = 15.000  
 .000 BOFLAP = 16.300  
 55.000 RUDDER = .000  
 15.000 ELEV-R = 15.000

RUN NO. 522/ 0 RVNL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MON	ALPHA	CL	CD	CA	CN	CLMPD	B	CAF	CAB	CDP	L/D
3.496	-1.797	-0.03220	.10960	.10940	-.03370	-.03960	252.000000	.10160	.00760	.10206	-.29288
3.496	-.107	-.02240	.10940	.10940	-.02260	-.03660	252.000000	.10035	.00605	.10039	-.29654
3.496	.911	-.00430	.10750	.10710	-.00260	-.03960	252.000000	.09072	.00838	.09866	-.04020
3.496	2.916	.04390	.10750	.10490	.04930	-.04040	252.000000	.09698	.00791	.09936	.40920
3.496	4.940	.09260	.11060	.10220	.10200	-.04160	252.000000	.09401	.00819	.10245	.40920
3.496	6.961	.14300	.11600	.10960	.15620	-.04610	252.000000	.09067	.00813	.10893	.40920
3.496	8.994	.19640	.13120	.10960	.21650	-.05010	252.000000	.08566	.00892	.12242	1.21152
3.496	12.010	.26010	.15970	.09790	.30720	-.06100	252.000000	.08911	.00879	.15109	1.51199
3.496	15.030	.37430	.20200	.09790	.41390	-.07000	252.000000	.08913	.00877	.19355	1.63274
3.496	18.050	.47090	.25690	.09620	.52700	-.08150	252.000000	.08925	.00895	.24847	1.83568
3.496	21.120	.56700	.32460	.09450	.64590	-.09640	252.000000	.08929	.00921	.31603	1.74675
3.496	24.180	.65750	.40430	.09990	.76520	-.10680	252.000000	.09721	.00969	.39549	1.62560
3.496	27.060	.74750	.49520	.10100	.89180	-.12250	252.000000	.09167	.00933	.48688	1.50920
GRADIENT	.02217	.00016	.00016	-.00123	.02403	-.00060	-.00000	-.00126	.00003	.00013	.20177

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS5C

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ARC 87-747 QAS5C B C H F M V NOM. RNVL SEAL.EL

(REL050) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
AILRON = .000 BDFLAP = 16.300  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 517/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.498	-1.506	-0.03980	.13020	.12980	-.04090	-.00900	318.20000	.10955	.02025	.10991	-.30541
2.498	.186	-.02600	.12890	.12900	-.02560	-.01280	318.20000	.10836	.02064	.10828	-.20182
2.498	1.252	.00160	.12780	.12780	.00420	-.01380	318.20000	.10750	.02030	.10757	.01187
2.498	3.232	.06000	.12900	.12540	.06720	-.01870	318.20000	.10466	.02074	.10829	.46533
2.498	5.256	.11580	.13390	.12280	.12760	-.02580	318.20000	.10134	.02146	.11260	.86446
2.498	7.284	.17130	.14200	.11910	.18790	-.02840	318.20000	.09746	.02164	.12050	1.20654
2.498	9.312	.23760	.15590	.11540	.25980	-.03210	318.20000	.09332	.02208	.13410	1.52360
2.498	12.360	.34010	.18720	.11010	.37230	-.04020	318.20000	.08875	.02135	.16638	1.81640
2.498	15.410	.43700	.23050	.10610	.48250	-.05630	318.20000	.08489	.02121	.21505	1.89573
2.498	18.460	.54160	.29010	.10370	.60560	-.06370	318.20000	.08139	.02231	.26896	1.86681
2.498	21.510	.63730	.35880	.10010	.72450	-.07620	318.20000	.07652	.02358	.33684	1.77642
2.498	24.580	.74010	.44400	.09600	.85780	-.08770	318.20000	.07189	.02411	.42219	1.66654
2.498	27.450	.82960	.53330	.09080	.98200	-.08770	318.20000	.06758	.02322	.51265	1.55570
2.498	GRADIENT	.02710	-.03025	-.00118	.02932	-.00236	.00000	-.00127	.00010	-.00033	.20955

RUN NO. 518/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.000	-1.579	-.05160	.11590	.11530	-.05270	-.01680	287.30000	.10239	.01291	.10291	-.44492
3.000	.142	-.03490	.11410	.11420	-.03460	-.01620	287.30000	.10077	.01343	.10069	-.30569
3.000	1.152	-.01170	.11240	.11260	-.00940	-.01690	287.30000	.09967	.01293	.09946	-.10376
3.000	3.180	.03190	.11170	.10980	.03810	-.01900	287.30000	.09640	.01340	.09837	.28592
3.000	5.194	.08620	.11440	.10810	.09620	-.02210	287.30000	.09232	.01378	.10065	.75367
3.000	7.232	.13690	.12090	.10270	.15110	-.02330	287.30000	.08913	.01357	.10745	1.13287
3.000	9.252	.19770	.13330	.09970	.21650	-.02630	287.30000	.08534	.01436	.11904	1.48376
3.000	12.280	.28530	.16060	.09630	.31300	-.03210	287.30000	.08176	.01454	.14646	1.77606
3.000	15.320	.38160	.20140	.09310	.42150	-.03770	287.30000	.07886	.01454	.18737	1.89506
3.000	18.380	.47540	.25330	.09050	.53100	-.04420	287.30000	.07585	.01465	.23942	1.87660
3.000	21.420	.57220	.31840	.08740	.64890	-.05510	287.30000	.07197	.01543	.30398	1.79731
3.000	24.460	.66380	.39490	.08460	.76770	-.06320	287.30000	.06889	.01571	.38058	1.68094
3.000	27.330	.75190	.48080	.08190	.88880	-.06960	287.30000	.06646	.01544	.46710	1.56397
3.000	GRADIENT	.02218	-.00103	-.00146	.02412	-.00067	.00000	-.00154	.00008	-.00110	.19464

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C H F W V NOM. RV/L SEAL.EI

(RELOSD) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 FLEVON = .000  
AILRON = .000 BDELAP = 16.300  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 519/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.496	-.818	-.03050	.10360	.10490	-.03200	-.02220	232.70000	.09689	.00801	.09763	-.47805
3.496	-.101	-.04150	.10350	.10340	-.04160	-.02220	232.70000	.09518	.00822	.09526	-.40026
3.496	.907	-.02090	.10130	.10160	-.01930	-.02230	232.70000	.09333	.00827	.09301	-.20641
3.496	2.925	.02350	.09960	.09830	.02850	-.02160	232.70000	.08954	.00876	.09088	.23335
3.496	4.941	.05300	.09020	.08440	.07140	-.02090	232.70000	.08537	.00903	.09120	.62879
3.496	6.965	.11510	.10610	.09130	.12710	-.02020	232.70000	.08208	.00922	.09689	1.08336
3.496	8.983	.16890	.11630	.08850	.18500	-.02240	232.70000	.07944	.00906	.10735	1.45238
3.496	12.010	.24710	.14050	.08500	.27090	-.02830	232.70000	.07715	.00885	.13183	1.75870
3.496	15.050	.33480	.17650	.08350	.36910	-.03350	232.70000	.07410	.00940	.16740	1.89689
3.496	18.080	.42070	.22280	.08130	.46910	-.03770	232.70000	.07212	.00918	.21414	1.88769
3.496	21.120	.51670	.28410	.07880	.58440	-.04430	232.70000	.06889	.00991	.27483	1.81904
3.496	24.160	.60700	.35670	.07700	.69990	-.05110	232.70000	.06723	.00977	.34780	1.70186
3.496	27.060	.69530	.43990	.07540	.81930	-.06140	232.70000	.06580	.00960	.43132	1.58074
GRADIENT		.02024	-.00090	-.00179	.02195	.00024	.00000	-.00197	.00018	-.00107	.19815

DATE 15 JUL 74

TABULATED SOURCE DATA - Q453C

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ARC 87-747 Q453C B C M F M V NOM. RN/L

(REL051) ( 11 APR 74 )

## REFERENCE DATA

SEEF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA = .000 ELEVON = .000  
 AIRCON = .000 BOFLAP = -11.700  
 SPDRK = 25.000 RUDDER = -25.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 440/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
2.498	-4.651	-.03150	.12260	.12270	-.03120	-.00920	322.40000	.10073	.02197	.10073	-.25428
2.498	-2.677	-.03090	.12430	.12430	-.03060	-.00500	322.40000	.10346	.02084	.10346	-.24618
2.498	.301	-.02660	.12430	.12440	-.02630	-.00100	322.40000	.10284	.02156	.10284	-.21141
2.498	3.373	-.04380	.12620	.12630	-.04360	.00040	322.40000	.10578	.02052	.10578	-.34521
2.498	5.421	-.03870	.12720	.12720	-.03850	-.00170	322.40000	.10633	.02087	.10633	-.30267
2.498	7.092	-.04010	.12800	.12800	-.03980	.00020	322.40000	.10694	.02106	.10694	-.31094
2.498	GRADIENT	-.00130	.00039	.00040	-.00131	.00118	.00000	.00052	-.00013	.00052	-.00953

RUN NO. 443/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.001	-4.630	-.02920	.10950	.10950	-.02920	-.01780	289.10000	.09508	.01442	.09508	-.26667
3.001	-2.622	-.04000	.11080	.11080	-.03990	-.01220	289.10000	.09693	.01387	.09693	-.36011
3.001	.400	-.04080	.11180	.11190	-.04060	-.00810	289.10000	.09844	.01346	.09844	-.36282
3.001	3.521	-.04430	.11420	.11430	-.04410	-.00820	289.10000	.10067	.01363	.10067	-.38383
3.001	5.611	-.04450	.11520	.11530	-.04430	-.00830	289.10000	.10071	.01459	.10071	-.38422
3.001	7.323	-.04930	.11630	.11640	-.04910	-.00380	289.10000	.10233	.01407	.10233	-.42182
3.001	GRADIENT	-.00159	.00035	.00057	-.00157	.00115	.00000	.00066	-.00010	.00066	-.01234

RUN NO. 446/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFD	Q	CAF	CAB	CDF	L/D
3.496	-4.836	-.03690	.10000	.09990	-.03720	-.01950	255.10000	.08890	.01100	.08890	-.37237
3.496	-2.757	-.04370	.10040	.10020	-.04400	-.01640	255.10000	.09118	.00902	.09118	-.43912
3.496	.348	-.04600	.10100	.10090	-.04620	-.01310	255.10000	.09127	.00963	.09127	-.45788
3.496	3.569	-.05360	.10380	.10360	-.05400	-.00950	255.10000	.09419	.00941	.09419	-.52124
3.496	5.726	-.05550	.10580	.10560	-.05580	-.00940	255.10000	.09599	.00961	.09599	-.52841
3.496	7.462	-.04680	.10650	.10640	-.04720	-.01150	255.10000	.09646	.00994	.09646	-.44361
3.496	GRADIENT	-.00183	.00043	.00043	-.00184	.00117	-.00000	.00056	-.00013	.00056	-.01615

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TABULATED SOURCE DATA - 0A53C

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ARC 87-747 0A53C B C H F W V NOM. RN/L

(REL052) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000  
AILRON = .000 BD'LAP = -11.700  
SPBRK = 25.000 RUDDER = -25.000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 441/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

HACH	BETA	CL	CD	CA	CN	CLMFAD	Q	CAF	CAB	CD	L/D
2.498	-4.735	.25970	.15370	.10500	.28300	-.01670	326.40000	.08283	.02217	.13071	1.70745
2.498	-2.723	.25890	.15500	.10640	.28240	-.01420	326.40000	.08368	.02272	.13144	1.68789
2.498	.297	.25630	.15490	.10680	.27980	-.01180	326.40000	.08433	.02247	.13164	1.67141
2.498	3.328	.25370	.15680	.10900	.27760	-.01100	326.40000	.08738	.02162	.13426	1.63585
2.498	5.336	.25730	.15880	.11040	.28150	-.01160	326.40000	.08792	.02248	.13547	1.63734
2.498	7.357	.26270	.16120	.11180	.28720	-.01180	326.40000	.08850	.02330	.13702	1.64667
2.498	9.376	.26460	.16180	.11200	.28920	-.01470	326.40000	.08861	.02339	.13749	1.65314
	GRADIENT	-.00077	.00033	.00045	-.00070	.00070	.00000	.00053	-.00008	.00040	-.00851

RUN NO. 444/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

HACH	ETA	CL	CD	CA	CN	CLMFAD	Q	CAF	CAB	CD	L/D
3.001	.714	.22630	.13420	.09220	.24640	-.01560	289.50000	.07595	.01825	.11759	1.69663
3.001	-2.670	.22070	.13370	.09260	.24080	-.01440	289.50000	.07776	.01484	.11839	1.66202
3.001	.395	.21780	.13440	.09370	.23820	-.00830	289.50000	.07881	.01489	.11897	1.63358
3.001	3.473	.21890	.13710	.09610	.23980	-.01000	289.50000	.08096	.01514	.12137	1.61042
3.001	5.514	.21990	.13930	.09790	.24120	-.00760	289.50000	.08231	.01559	.12294	1.59466
3.001	7.559	.22230	.14030	.09850	.24370	-.00980	289.50000	.08262	.01588	.12369	1.59985
3.001	9.615	.21940	.14040	.09910	.24090	-.01250	289.50000	.08240	.01670	.12298	1.57812
	GRADIENT	-.00086	.00036	.00047	-.00076	.00082	-.00000	.00058	-.00010	.00044	-.01923

RUN NO. 447/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

HACH	BETA	CL	CD	CA	CN	CLMFAD	Q	CAF	CAB	CD	L/D
3.496	-4.917	.19950	.11800	.08190	.21690	-.01670	255.10000	.07134	.01056	.10792	1.68512
3.496	-2.806	.18660	.11660	.08270	.20400	-.01080	255.10000	.07294	.00976	.10726	1.59616
3.496	.352	.17830	.11520	.08270	.19550	-.00650	255.10000	.07271	.00999	.10555	1.54404
3.496	3.519	.17880	.11940	.08680	.19670	-.00390	255.10000	.07719	.00961	.11018	1.49316
3.496	5.625	.17900	.12030	.08760	.19700	-.00750	255.10000	.07729	.01031	.11033	1.48403
3.496	7.741	.18450	.12190	.08820	.20280	-.00700	255.10000	.07695	.01125	.11100	1.51056
3.496	9.850	.18440	.12170	.08810	.20260	-.00910	255.10000	.07829	.00981	.11228	1.51074
	GRADIENT	-.00237	.00013	.00053	-.00232	.00147	.00000	.00061	-.00009	.00020	-.02159

DATE 15 JUL 74

TABULATED SOURCE DATA - Q453C

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ARC 87-747 Q453C B C H F M V NOM. RN/L

(RELOSS) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BRREF = 24.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
 AILRON = .000 BOFLAP = -11.700  
 SPCBRK = 25.000 RUDDER = -25.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 442/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFAD	Q	CAF	CAB	CDP	L/D
2.498	-4.738	.59310	.31710	.09010	.66650	-.03320	326.60000	.06602	.02408	.29050	1.90482
2.498	-2.727	.58360	.31490	.09130	.65680	-.02840	326.60000	.06887	.02243	.28935	1.88757
2.498	.277	.58220	.31370	.09130	.65330	-.02690	326.60000	.06829	.02301	.28761	1.88424
2.498	3.317	.58750	.31570	.09050	.66070	-.02840	326.60000	.06825	.02225	.29010	1.89670
2.498	5.341	.59160	.31710	.09050	.66510	-.03300	326.60000	.06746	.02304	.29087	1.90080
2.498	7.370	.59230	.31800	.09110	.66610	-.03120	326.60000	.06640	.02470	.29022	1.89765
2.498	9.387	.59090	.31820	.09180	.66490	-.03290	326.60000	.06815	.02365	.29145	1.89179
GRADIENT		-.00063	-.00017	.00003	-.00065	.00034	.00000	.00020	-.00017	-.00004	-.00081

RUN NO. 445/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFAD	Q	CAF	CAB	CDP	L/D
3.001	-4.721	.52390	.27770	.07880	.58770	-.02920	293.30000	.06258	.01622	.25981	1.90984
3.001	-2.678	.51740	.27790	.08100	.58170	-.02230	293.30000	.06602	.01498	.26099	1.88650
3.001	.375	.51530	.27710	.08060	.57950	-.01850	293.30000	.06512	.01548	.25939	1.88722
3.001	3.465	.51940	.27890	.08060	.58400	-.02100	293.30000	.06485	.01575	.26068	1.89203
3.001	5.517	.52300	.28090	.08100	.58810	-.02460	293.30000	.06517	.01583	.26238	1.89350
3.001	7.579	.52250	.28290	.08210	.58810	-.02230	293.30000	.06569	.01641	.26287	1.88491
3.001	9.624	.52090	.28290	.08340	.58690	-.02230	293.30000	.06705	.01635	.26374	1.87380
GRADIENT		-.00049	.00011	.00016	-.00041	.00096	-.00000	.00018	-.00002	.00003	-.00168

RUN NO. 448/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CA	CN	CLMFAD	Q	CAF	CAB	CDP	L/D
3.496	-4.914	.48060	.25170	.07170	.53770	-.02190	255.00000	.06009	.01161	.24037	1.91320
3.496	-2.809	.47680	.25170	.07300	.53420	-.01780	255.00000	.06299	.01001	.24190	1.89816
3.496	.335	.47470	.25110	.07310	.53200	-.01380	255.00000	.06206	.01104	.24027	1.89476
3.496	3.509	.47420	.25130	.07330	.53170	-.01610	255.00000	.06165	.01145	.23997	1.89272
3.496	5.632	.47460	.25250	.07440	.53250	-.01750	255.00000	.06394	.01046	.24221	1.88439
3.496	7.755	.47250	.25180	.07450	.53020	-.01930	255.00000	.06472	.00978	.24215	1.88085
3.496	9.876	.46690	.25110	.07580	.52470	-.01830	255.00000	.06413	.01167	.23972	1.86341
GRADIENT		-.00072	-.00006	.00016	-.00068	.00071	.00000	.00013	-.00004	-.00012	-.00217

ARC 87-747 0455C B C M F VA V NOM. RN/L

(RELO54) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3910 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AILRON = 15.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -5.000 ELEV-R = 35.000

RUN NO. 529/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
2.499	-.520	-.11730	.14350	.14250	-.11860	.03670	320.90000	.12417	.01833	.12924	-.81703
2.499	.175	-.10150	.14040	.14070	-.10110	.03550	320.90000	.12231	.01839	.12200	-.72319
2.499	1.188	-.07450	.13690	.13840	-.07160	.03420	320.90000	.11897	.01943	.11746	-.54391
2.499	3.218	-.01590	.13310	.13380	-.00800	.02940	320.90000	.11416	.01964	.11353	-.11641
2.499	5.247	.04010	.13230	.12810	.05200	.02390	320.90000	.10802	.02008	.11232	.35281
2.499	7.279	.10970	.13900	.12400	.12640	.01860	320.90000	.10353	.02047	.11871	.78891
2.499	9.311	.17120	.14850	.11890	.29430	.01690	320.90000	.09807	.02083	.12801	1.15253
2.499	12.370	.26350	.17240	.11190	.29430	.01820	320.90000	.09143	.02047	.15235	1.52886
2.499	15.420	.36600	.21070	.10380	.40880	.01410	320.90000	.08548	.02032	.19110	1.73694
2.499	18.500	.46750	.26270	.10980	.52670	.01080	320.90000	.07910	.02170	.24214	1.77948
2.499	21.520	.55640	.32160	.09510	.63560	.00510	320.90000	.07248	.02262	.30058	1.72999
2.499	24.580	.65180	.39620	.08920	.75760	.00080	320.90000	.06614	.02306	.37528	1.64503
2.499	27.450	.74010	.47760	.08260	.87700	-.00290	320.90000	.05976	.02284	.45731	1.54988
GRADIENT		.02748	-.00270	-.00231	.02983	-.00195	-.00000	-.00269	.00038	-.00307	.19025

RUN NO. 530/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMFW	Q	CAF	CAB	CDF	L/D
3.000	-.561	-.10480	.12640	.12540	-.10610	.01930	291.20000	.11195	.01345	.11298	-.62943
3.000	.134	-.09180	.12360	.12380	-.09150	.01580	291.20000	.11132	.01248	.11111	-.74272
3.000	1.142	-.07610	.12010	.12160	-.07370	.01670	291.20000	.10793	.01367	.10644	-.63368
3.000	3.158	-.02980	.11580	.11730	-.02330	.01780	291.20000	.10351	.01379	.10207	-.25662
3.000	5.175	.02590	.11450	.11170	.03570	.01450	291.20000	.09784	.01386	.10066	.22260
3.000	7.219	.08050	.11820	.10720	.09470	.01370	291.20000	.09291	.01429	.10458	.68058
3.000	9.247	.13260	.12660	.10360	.15120	.01530	291.20000	.08892	.01468	.11206	1.04771
3.000	12.290	.22170	.14880	.09810	.24830	.01520	291.20000	.08295	.01515	.13391	1.49106
3.000	15.330	.31350	.18280	.09340	.35070	.01290	291.20000	.07871	.01469	.16863	1.71520
3.000	18.370	.40460	.22720	.08810	.45560	.00860	291.20000	.07315	.01495	.21301	1.78094
3.000	21.410	.49210	.28310	.08390	.56150	.00860	291.20000	.06847	.01543	.26871	1.73847
3.000	24.470	.58670	.35430	.07940	.68070	.00840	291.20000	.06277	.01663	.33909	1.65620
3.000	27.510	.66790	.42930	.07500	.79040	.00500	291.20000	.05957	.01543	.41537	1.55584
GRADIENT		.02015	-.00280	-.00217	.02223	-.00010	.00000	-.00237	.00020	-.00299	.15470

DATE 15 JUL 74

TABULATED SOURCE DATA - Q455C

PAGE 02

ARC 07-747 Q455C B C H F M V NON. RN/L

(RELO54) ( 11 APR 74 )

## REFERENCE DATA

SREF = 2.4210 98.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 20.1004 IN. YMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 ALLRON = 15.000 BCFLAP = -11.700  
 SPCBRK = 55.000 RUDDER = .000  
 ELEV-L = -5.000 ELEV-R = 35.000

RUN NO. 531/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CA	CN	CLMF10	Q	CAF	CAB	CDP	L/D
3.496	-1.007	-10700	.11570	.11420	-10060	.00730	253.70000	.10362	.00836	.10714	-1.92450
3.496	-1.100	-10060	.11230	.11220	-10100	.00980	253.70000	.10476	.00744	.10493	-1.89703
3.496	.914	-07840	.10820	.10950	-07670	.00770	253.70000	.10206	.00744	.10082	-1.72452
3.496	2.929	-03100	.10320	.10460	-02570	.01060	253.70000	.09826	.00834	.09482	-1.35064
3.496	4.942	.01410	.10100	.09950	.02280	.00770	253.70000	.09132	.00818	.09294	.13990
3.496	6.945	.05660	.10320	.09530	.07070	.00890	253.70000	.08697	.00833	.09488	.56867
3.496	8.971	.11100	.11100	.09240	.12690	.01130	253.70000	.08404	.00836	.10280	.99893
3.496	12.000	.19340	.13120	.06810	.21640	.01210	253.70000	.07952	.00858	.12277	1.47411
3.496	15.040	.27920	.16130	.06340	.31150	.01180	253.70000	.07386	.00954	.13216	1.73005
3.496	18.080	.36180	.20170	.07940	.40650	.01060	253.70000	.06965	.00975	.19236	1.79427
3.496	21.130	.45210	.25600	.07580	.51400	.00920	253.70000	.06649	.00931	.24731	1.76613
3.496	24.170	.53600	.32040	.07250	.62090	.00920	253.70000	.06287	.00963	.31158	1.67552
3.496	27.000	.61520	.39130	.06930	.72580	.00970	253.70000	.05814	.01116	.38131	1.57246
GRADIENT	.02179	-.10252	-.10252	-.10254	.02358	.00007	.00000	-.10258	.00005	-.00256	.19240



TABULATED SOURCE DATA - QAS3C

DATE 15 JUL 74

ARC 87-747 QAS3C B C N F M V NOM. RN/L (AEL002) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
AILRON = .000 BDFLAP = -11.700  
SPDRBK = 95.000 RUDDER = .000  
ELEV-L = -10.000 ELEV-R = -10.000

RUN NO. 514/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLIMFO	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.498	-.591	.02510	.00150	-.00010	-.00040	.00310	-.00120	.75360	315.90000	.00070
2.498	.129	.02420	.00190	-.00020	-.00040	.00310	-.00120	.78060	315.90000	.00060
2.498	1.143	.02200	.00070	-.00010	-.00040	.00290	-.00110	.87080	315.90000	.00060
2.498	3.161	.01560	-.00070	.00000	-.00040	.00210	-.00080	.41770	315.90000	.00040
2.498	5.192	.01470	-.00100	-.00020	-.00040	.00200	-.00070	.37100	315.90000	.00030
2.498	7.979	.00950	-.00090	-.00020	-.00030	.00250	-.00090	.60980	315.90000	.00040
2.498	9.246	.01110	-.00100	-.00020	-.00040	.00230	-.00090	.61380	315.90000	.00040
2.498	12.500	.00830	-.00170	-.00020	-.00030	.00270	-.00100	.62210	315.90000	.00060
2.498	15.360	.00610	-.00120	-.00020	-.00030	.00300	-.00100	.62760	315.90000	.00060
2.498	18.410	.00150	-.00090	-.00050	-.00020	.00230	-.00090	.63170	315.90000	.00050
2.498	21.460	-.00200	-.00070	-.00070	-.00010	.00130	-.00050	.63390	315.90000	.00030
2.498	24.510	-.00500	-.00070	-.00080	.00010	.00120	-.00050	.63500	315.90000	.00040
2.498	27.380	-.01070	.00010	-.00130	.00030	.00190	-.00070	.63710	315.90000	.00040
2.498	GRADIENT	-.00260	-.00067	.00004	.00000	-.00028	.00011	-.09283	.00000	-.00007

RUN NO. 515/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLIMFO	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-.611	.00670	.00200	.00020	-.00020	.00270	-.00100	.66770	285.50000	.00060
3.001	.079	.00650	.00140	.00020	-.00020	.00200	-.00080	.67530	285.50000	.00050
3.001	1.093	.00760	.00070	.00020	-.00030	.00170	-.00070	.70490	285.50000	.00040
3.001	3.122	.00820	-.00090	.00020	-.00030	.00060	-.00030	.43380	285.50000	.00020
3.001	5.136	.00950	-.00120	.00010	-.00030	.00100	-.00040	.58620	285.50000	.00020
3.001	7.161	.00560	-.00110	.00020	-.00030	.00130	-.00050	.61630	285.50000	.00030
3.001	9.189	.00710	-.00170	.00010	-.00030	.00140	-.00050	.61820	285.50000	.00030
3.001	12.220	.00540	-.00180	.00000	-.00030	.00150	-.00060	.62550	285.50000	.00040
3.001	15.260	.00310	-.00120	.00000	-.00020	.00180	-.00070	.62770	285.50000	.00040
3.001	18.310	.00290	-.00140	-.00030	-.00010	.00110	-.00040	.63120	285.50000	.00040
3.001	21.350	.00110	-.00060	-.00040	.00000	.00080	-.00030	.63210	285.50000	.00030
3.001	24.400	.00090	-.00100	-.00060	.00000	.00150	-.00020	.63220	285.50000	.00020
3.001	27.240	-.00360	-.00080	-.00090	.00020	.00100	-.00040	.63440	285.50000	.00030
3.001	GRADIENT	.00046	-.00077	.00000	-.00003	-.00053	.00016	-.06494	.00000	-.00010

(AEL002) ( 07 MAR 74 )

ARC 87-747 QASXC B C N F M V MON. RWL

REFERENCE DATA

REF = 2.4210 94.FT. 196P = 32.3010 IN.  
LREF = 14.2440 IN. 196P = .0000 IN.  
REF = 28.1004 IN. 296P = 11.2500 IN.  
SCALE = .0000 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
AIRLON = .000 BOFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -10.000 ELEV-R = -10.000

RUN NO. 516/ 0 RWL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CLAPLO	CY	CYN	ORL	CYV	CYN	WCP/L	Q	ORLV
3.496	-0.53	-0.0060	.00290	.00050	-0.0020	.00300	-0.0010	.62960	249.40000	.00070
3.496	-1.66	.00000	.00240	.00050	-0.0020	.00220	-0.00060	.63270	249.40000	.00050
3.496	.851	.00140	.00150	.00040	-0.0020	.00150	-0.00060	.64650	249.40000	.00040
3.496	2.658	-0.0040	.00060	.00040	-0.0030	.00100	-0.00040	.65220	249.40000	.00030
3.496	4.877	.00250	-0.0040	.00040	-0.0030	.00090	-0.00030	.61400	249.40000	.00030
3.496	6.896	.00150	-0.0010	.00040	-0.0040	.00040	-0.00020	.62820	249.40000	.00030
3.496	8.918	.00360	-0.0060	.00030	-0.0040	.00040	-0.00020	.62360	249.40000	.00020
3.496	11.940	.00620	-0.0100	.00010	-0.0030	.00040	-0.00020	.62330	249.40000	.00030
3.496	14.990	.00470	-0.0120	.00010	-0.0030	.00050	-0.00010	.62770	249.40000	.00040
3.496	18.020	.00360	-0.0200	.00020	-0.0030	.00050	.00010	.62950	249.40000	.00020
3.496	21.060	.00490	-0.0160	.00010	-0.0030	.00060	.00020	.62930	249.40000	.00010
3.496	24.110	.00450	-0.0180	.00010	-0.0030	.00040	.00010	.63020	249.40000	.00010
3.496	26.940	.00660	-0.0190	-0.0030	-0.0040	.00060	.00010	.62950	249.40000	.00010
	GRADIENT	.00036	-0.00057	-0.0002	-0.0002	.00035	.00013	-.00175	.00000	-.00006

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS5C

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ARC 87-747 QAS5C B C M F W V NOM. RVL

(AEL003) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. WREF = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
AIRON = .000 BOFLAP = -11.705  
SPONK = 55.000 RUDDER = .000  
ELEV-L = 15.000 ELEV-R = 15.700

RUN NO. 503/ 0 RVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMPD	CY	CYN	CBL	CVV	CYV	KEP/L	Q	CBV
2.496	-0.564	-0.02700	.00170	.00000	-.00020	.00240	-.00100	-.28700	320.40000	.00060
2.496	1.129	-0.02840	.00150	.00000	-.00020	.00230	-.00090	24.54000	320.40000	.00060
2.496	1.140	-0.02950	.00100	.00000	-.00010	.00190	-.00040	1.06400	320.40000	.00050
2.496	5.166	-0.03530	.00030	.00000	-.00010	.00080	-.00040	.77560	320.40000	.00030
2.496	5.195	-0.03970	-.00270	.00010	-.00250	.00100	-.00040	.75060	320.40000	.00030
2.496	7.218	-0.04230	.07220	-.00020	-.00020	.02460	-.00010	.70570	320.40000	.00290
2.496	9.290	-0.04570	.00010	-.00020	-.00020	.00120	-.00030	.69180	320.40000	.00040
2.496	12.300	-0.05180	.00070	-.00040	.00050	.00180	-.00070	.68090	320.40000	.00060
2.496	15.360	-0.05970	.00050	-.00040	.00010	.00200	-.00070	.67540	320.40000	.00060
2.496	18.400	-0.06960	.00060	-.00070	.00080	.00150	-.00050	.67320	320.40000	.00050
2.496	21.480	-0.08060	.00060	-.00070	.00040	.00070	-.00020	.67220	320.40000	.00030
2.496	24.510	-0.09410	.00170	-.00110	.00080	.00070	-.00030	.67180	320.40000	.00040
2.496	27.390	-0.10430	.00160	-.00150	.00110	.00180	-.00060	.67070	320.40000	.00050
2.496	GRADIENT	-.00220	-.00036	.00000	.00003	-.00044	.00016	-2.26996	.00000	-.00009

RUN NO. 504/ 0 RVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMPD	CY	CYN	CBL	CVV	CVV	KEP/L	Q	CBV
3.001	-0.627	-0.02800	.00240	.00020	.00000	.00110	-.00050	.24150	288.30000	.00060
3.001	.061	-0.02820	.00220	.00020	.00000	.00070	-.00040	-.04610	288.30000	.00050
3.001	1.069	-0.02970	.00090	.00020	.00000	.00020	-.00020	2.25800	288.30000	.00030
3.001	3.113	-0.02950	-.00040	.00020	-.00010	-.00050	.00010	.82607	288.30000	.00020
3.001	5.135	-0.03070	-.00050	.00020	-.00010	.00020	-.00010	.73651	288.30000	.00030
3.001	7.156	-0.03390	-.00050	.00010	-.00010	.00010	-.00010	.70630	288.30000	.00020
3.001	9.177	-0.03180	-.00070	.00010	-.00010	-.00020	.00000	.68700	288.30000	.00020
3.001	12.230	-0.04490	-.00040	-.00010	.00000	.00000	-.00010	.68170	288.30000	.00030
3.001	15.280	-0.05100	.00040	-.00020	.00010	.00030	-.00020	.67530	288.30000	.00040
3.001	18.310	-0.06020	.00050	-.00030	.00020	.00000	.00050	.67280	288.30000	.00040
3.001	21.350	-0.06990	.00110	-.00070	.00050	-.00020	.00000	.67070	288.30000	.00030
3.001	24.410	-0.07990	.00070	-.00090	.00060	-.00060	.00020	.66950	288.30000	.00020
3.001	27.280	-0.08680	.00160	-.00140	.00090	-.00050	.00010	.66810	288.30000	.00020
3.001	GRADIENT	-.00016	-.00079	.00000	-.00003	-.00042	.00016	.23666	.00000	-.00011

ARC 87-747 QAS5C B C H F M V NOM. RV/L

(AEL003) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 28.FT. WREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVOM = 15.000  
 AILROM = .000 BOFLAP = -11.700  
 SPORNR = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 905/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

NO	ALPHA	CLIMFLO	CY	CYN	CBL	CYV	CYV	WCP/L	θ	CBL V
3.496	-0.876	-0.02640	.00330	.00050	-.00010	.00180	-.00070	.40570	251.90000	.00040
3.496	-1.167	-0.02770	.00270	.00050	-.00010	.00120	-.00050	.38930	251.90000	.00050
3.496	.840	-0.02940	.00210	.00040	-.00010	.00050	-.00030	-.93760	251.90000	.00040
3.496	2.064	-0.02740	.00060	.00050	-.00020	-.00040	.00010	.94750	251.90000	.00060
3.496	4.877	-0.03050	.00050	.00050	-.00030	.00000	.00010	.76150	251.90000	.00030
3.496	6.898	-0.03040	-.00070	.00050	-.00030	-.00050	.00010	.71540	251.90000	.00060
3.496	8.920	-0.03340	-.00130	.00050	-.00030	-.00010	.00000	.69330	251.90000	.00030
3.496	11.950	-0.04070	-.00250	.00020	-.00030	-.00090	.00020	.66420	251.90000	.00020
3.496	14.980	-0.04650	-.0010	.00010	-.00030	-.00100	.00030	.67620	251.90000	.00030
3.496	18.020	-0.05420	.00020	-.00010	-.00020	-.00120	.00040	.67240	251.90000	.00020
3.496	21.040	-0.06050	.00040	-.00020	-.00010	-.00210	.00070	.66620	251.90000	.00020
3.496	24.100	-0.07050	.00010	-.00040	.00070	-.00180	.00060	.66820	251.90000	.00020
3.496	26.970	-0.07750	.00020	-.00040	.00030	-.00190	.00060	.66820	251.90000	.00010
3.496	GRADIENT	-.00052	-.00051	.00000	-.00004	-.00032	.00013	.13376	.00000	-.00006

DATE 19 JUL 74

TABULATED SOURCE DATA - QASXC

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ARC 87-747 QASXC B C M F M V NOM. RNVL (AEL064) ( 07 MAR 74 )

## REFERENCE DATA

SACF = 2.4210 SQ.FT. ZMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AILRON = 5.000 BCFAP = -11.700  
 SPDRK = 55.000 RUDGR = .000  
 ELEV-L = 5.000 ELEV-R = -5.000

RUN NO. 407/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMP/D	CY	CYN	CBL	CYV	CYNV	MCP/L	Q	CBLV
2.499	-566	.00480	.00590	.00000	.00320	.00340	-.00130	.66730	323.20000	.00070
2.499	-599	.00330	.00320	.00010	.00340	.00330	-.00120	.86310	323.20000	.00070
2.499	1.415	.00350	.00150	-.00020	.00330	.00280	-.00110	1.17900	323.20000	.00060
2.499	3.443	-.00020	.00270	-.00030	.00350	.00250	-.00090	.63420	323.20000	.00040
2.499	5.466	-.00380	.00250	-.00050	.00360	.00250	-.00090	.65050	323.20000	.00040
2.499	7.504	-.00380	.00110	-.00070	.00390	.00290	-.00100	.64400	323.20000	.00030
2.499	9.529	-.00900	.00300	-.00060	.00380	.00290	-.00110	.64570	323.20000	.00060
2.499	12.580	-.01040	-.00270	-.00040	.00380	.00310	-.00110	.64330	323.20000	.00070
2.499	15.630	-.01320	.00200	-.00140	.00470	.00350	-.00120	.64460	323.20000	.00060
2.499	18.690	-.02070	.00250	-.00150	.00320	.00280	-.00100	.64570	323.20000	.00050
2.499	21.740	-.02790	.00220	-.00160	.00580	.00180	-.00060	.64720	323.20000	.00050
2.499	24.800	-.03380	.00340	-.00250	.00670	.00270	-.00070	.64850	323.20000	.00060
2.499	27.340	-.04440	.00150	-.00250	.00750	.00350	-.00100	.65000	323.20000	.00060
2.499	GRADIENT	-.00111	-.00063	-.00009	.00005	-.00030	.00012	.01157	.00000	-.00008

RUN NO. 408/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMP/D	CY	CYN	CBL	CYV	CYNV	MCP/L	Q	CBLV
3.001	-609	-.00450	.00380	.00040	.00260	.00220	-.00090	.60050	290.80000	.00060
3.001	-149	-.00630	.00510	.00010	.00300	.00190	-.00080	.58180	290.80000	.00050
3.001	1.360	-.00620	.00020	-.00010	.00260	.00170	-.00070	.40980	290.80000	.00040
3.001	3.387	-.00440	.00150	.00010	.00260	.00120	-.00050	.67050	290.80000	.00030
3.001	5.412	-.00570	.00300	-.00020	.00280	.00180	-.00060	.65480	290.80000	.00030
3.001	7.440	-.00530	.00120	-.00020	.00280	.00160	-.00060	.64120	290.80000	.00030
3.001	9.460	-.00650	-.00060	-.00050	.00310	.00180	-.00070	.64390	290.80000	.00040
3.001	12.500	-.00900	.00010	-.00050	.00340	.00200	-.00070	.64340	290.80000	.00030
3.001	15.550	-.01000	-.00030	-.00060	.00390	.00240	-.00090	.64170	290.80000	.00030
3.001	18.590	-.01550	-.00160	-.00070	.00470	.00160	-.00080	.64440	290.80000	.00030
3.001	21.630	-.02010	.00310	-.00170	.00530	.00120	-.00040	.64700	290.80000	.00040
3.001	24.690	-.02920	.00220	-.00190	.00600	.00170	-.00050	.64700	290.80000	.00050
3.001	27.230	-.03260	.00240	-.00250	.00660	.00240	-.00080	.64670	290.80000	.00050
3.001	GRADIENT	.00017	-.00085	-.00005	-.00005	-.00023	.00009	.01228	.00000	-.00007

DATE 15 JUL 74

UAELO004) ( 07 MAR 74 )

TABULATED SOURCE DATA - 0433C  
ARC 87-747 0433C 8 C H F M V MON. BWL

REFERENCE DATA

BREF = 2.4215 50-FT.  
LREF = 14.2440 IN.  
BREF = 20.1024 IN.  
SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000  
ATTURON = 5.000 BOFLAP = -11.700  
SPORAK = 55.000 RUCCER = .000  
ELEV-L = 5.000 ELEV-R = -3.000

RUN NO. 409/ 0 RWL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MON	ALPHA	CLAPL	CY	CYN	CL	CYV	CYNV	WFL	WFL	CBLY
3.496	-0.554	-0.01170	.00030	.00030	.00180	.00310	-.00110	.54730	254.70000	.00070
3.496	-0.390	-0.00990	.00030	.00030	.00180	.00270	-.00100	.54610	254.70000	.00060
3.496	1.122	-0.01190	.00030	.00030	.00190	.00200	-.00090	.32260	254.70000	.00050
3.496	3.132	-0.00940	.00190	.00010	.00180	.00180	-.00070	.76980	254.70000	.00040
3.496	5.152	-0.00620	.00480	-.00010	.00190	.00180	-.00060	.67160	254.70000	.00040
3.496	7.170	-0.00720	.00330	-.00010	.00190	.00190	-.00070	.65390	254.70000	.00040
3.496	9.197	-0.00680	.00210	-.00020	.00170	.00170	-.00060	.64640	254.70000	.00040
3.496	12.230	-0.00550	.00130	-.00040	.00140	.00140	-.00050	.64010	254.70000	.00030
3.496	15.270	-0.00420	.00110	-.00030	.00130	.00130	-.00030	.64080	254.70000	.00040
3.496	18.320	-0.00300	.00090	-.00020	.00110	.00110	-.00020	.64190	254.70000	.00020
3.496	21.340	-0.01430	.00190	-.00110	.00140	.00140	-.00020	.64330	254.70000	.00020
3.496	24.360	-0.02000	-.00190	-.00120	.00110	.00110	-.00010	.64355	.00000	-.00007
	GRADIENT	.00019	-.00100	-.00005	.00000	-.00031	.00010			

DATE 15 JUL 74

## TABULATED SOURCE DATA - QASXC

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ARC 67-747 QASXC 8 C N F M V NOM. RML

(JUL 005) (07 MAR 74)

## REFERENCE DATA

XREF = 2.4210 SA.FT. XREF = 32.3010 IN.  
 YREF = 14.2440 IN. YREF = .0000 IN.  
 ZREF = 26.1504 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
 ALLRON = 5.000 BCFAP = -11.700  
 SPORE = 55.000 RUDDER = .000  
 ELEV-L = -5.000 ELEV-R = -15.000

RUN NO. 416/0 RML = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CLAP/L	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-.566	-.0040	.00100	.00350	.00120	-.00120	.74750	325.20000	.00070
2.499	-.556	-.0030	.00110	.00350	.00120	-.00120	.75160	325.20000	.00070
2.499	1.462	.00230	.00060	.00340	.00220	-.00090	.93640	325.20000	.00050
2.499	3.416	.01630	.00060	.00320	.00180	-.00060	.40750	325.20000	.00040
2.499	5.457	.01580	.00030	.00320	.00220	-.00060	.56210	325.20000	.00050
2.499	7.487	.01330	.00010	.00320	.00230	-.00090	.60120	325.20000	.00050
2.499	9.514	.01160	.00000	.00320	.00240	-.00090	.61390	325.20000	.00050
2.499	12.540	.01100	.00030	.00330	.00290	-.00110	.62040	325.20000	.00070
2.499	15.640	.00360	.00040	.00360	.00320	-.00110	.62980	325.20000	.00070
2.499	18.670	.00080	.00070	.00360	.00220	-.00060	.63160	325.20000	.00060
2.499	21.750	.00020	.00115	.00400	.00160	-.00060	.63410	325.20000	.00050
2.499	24.790	.00040	.00080	.00450	.00140	-.00060	.63700	325.20000	.00050
2.499	27.350	.00100	.00200	.00510	.00220	-.00080	.63800	325.20000	.00060
2.499	30.175	.00045	.00512	-.00006	-.00033	.00011	-.07593	.00000	-.00006

RUN NO. 417/0 RML = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CLAP/L	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.002	-.611	.00350	.00100	.00280	.00210	-.00090	.66370	291.40000	.00060
3.002	-.144	.00230	.00080	.00270	.00180	-.00070	.66700	291.40000	.00060
3.002	1.368	.00040	.00070	.00280	.00150	-.00060	.72680	291.40000	.00050
3.002	3.360	.00060	.00050	.00240	.00090	-.00040	.59810	291.40000	.00030
3.002	5.363	.00030	.00010	.00240	.00140	-.00050	.59980	291.40000	.00040
3.002	7.425	.00030	.00010	.00230	.00130	-.00050	.60660	291.40000	.00040
3.002	9.472	.00060	.00010	.00230	.00130	-.00050	.61970	291.40000	.00040
3.002	12.490	.00390	.00000	.00260	.00190	-.00070	.62310	291.40000	.00050
3.002	15.540	.00140	.00030	.00260	.00230	-.00060	.62760	291.40000	.00060
3.002	18.600	.00060	.00050	.00320	.00180	-.00070	.62960	291.40000	.00050
3.002	21.620	.00050	.00090	.00360	.00110	-.00040	.63270	291.40000	.00040
3.002	24.690	.00100	.00110	.00450	.00100	-.00030	.63360	291.40000	.00040
3.002	27.230	.00050	.00160	.00450	.00140	-.00050	.63560	291.40000	.00050
3.002	30.087	.00099	.00011	-.00009	-.00028	.00011	-.06371	.00000	-.00008

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F W V NOM. RN/L

(AELO05) (07 MAR 74)

REFERENCE DATA

SREF = 2.4210 SQ.FT.  
LREF = 14.2440 IN.  
BREF = 28.1004 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEVON = -10.000  
AILRON = 5.000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -5.000 ELEV-R = -15.000

PARAMETRIC DATA

RUN NO. 418/0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFO	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.498	-8.58	-0.0330	.0290	.00110	.00220	.00270	-.00100	.61760	256.90000	.00070
3.498	-3.90	-0.0160	.0260	.00100	.00220	.00230	-.00090	.62500	256.90000	.00060
3.498	1.134	-0.0080	.00160	.00090	.00210	.00130	-.00070	.62510	256.90000	.00050
3.498	3.122	.00410	-.00140	.00050	.00190	.00080	-.00040	-1.55600	256.90000	.00040
3.498	5.153	.00200	-.00040	.00060	.00170	.00210	-.00070	.62030	256.90000	.00030
3.498	7.156	.00480	-.00250	.00030	.00170	.00110	-.00040	.61580	256.90000	.00040
3.498	9.186	.00500	-.00220	.00010	.00170	.00090	-.00040	.62110	256.90000	.00040
3.498	12.220	.00420	-.00090	.00020	.00180	.00090	-.00040	.62660	256.90000	.00040
3.498	15.260	.00460	.00030	.00000	.00210	.00090	-.00040	.62780	256.90000	.00030
3.498	18.280	.00590	-.00190	-.00020	.00230	.00010	-.00010	.62770	256.90000	.00030
3.498	21.340	.00250	-.00190	-.00030	.00270	.00010	.00000	.63110	256.90000	.00030
3.498	24.390	.00430	-.00160	-.00070	.0010	-.00030	.00010	.63030	256.90000	.00020
3.498	26.320	-.00030	-.00090	-.00120	.00050	.00040	-.00010	.63290	256.90000	.00030
3.498	GRADIENT	.00171	-.00107	-.00014	-.00038	-.00047	.00015	-.53389	-.00000	-.00007



DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

ARC 87-747 0453C B C M F M V NOM. RV/L

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(AEL006) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.  
 LREF = 14.2440 IN.  
 BREF = 20.1054 IN.  
 SCALE = .0350 SCALE

YMRP = 32.3010 IN.  
 YMRP = .0000 IN.  
 ZMRP = 11.2500 IN.

BETA = .000 ELEVON = 7.500  
 AILRON = -7.500 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = 15.000

## PARAMETRIC DATA

RUN NO. 506/ 0 RV/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMP/D	CY	CYN	CBL	CYV	CYNV	ACP/L	Q	CBLV
2.499	-.609	-.01050	.00200	.00120	-.00590	.00290	-.00110	.50850	318.20000	.00070
2.499	.130	-.01260	.00170	.00140	-.00600	.00270	-.00110	.24960	318.20000	.00060
2.499	1.142	-.01490	.00100	.00140	-.00610	.00220	-.00090	.24960	318.20000	.00050
2.499	3.166	-.01700	-.00060	.00180	-.00620	.00170	-.00070	.72050	318.20000	.00040
2.499	5.193	-.02330	-.00150	.00200	-.00640	.00160	-.00060	.69560	318.20000	.00030
2.499	7.225	-.02620	-.00110	.00220	-.00670	.00200	-.00070	.68080	318.20000	.00040
2.499	9.254	-.02730	-.00200	.00250	-.00710	.00190	-.00070	.66970	318.20000	.00040
2.499	12.300	-.03330	-.00200	.00280	-.00750	.00240	-.00090	.66540	318.20000	.00060
2.499	15.360	-.03730	-.00180	.00320	-.00810	.00260	-.00090	.66060	318.20000	.00060
2.499	18.410	-.04720	-.00160	.00350	-.00900	.00170	-.00060	.66120	318.20000	.00050
2.499	21.460	-.05280	-.00190	.00380	-.00950	.00080	-.00030	.65950	318.20000	.00030
2.499	24.520	-.06390	-.00220	.00400	-.01020	.00110	-.00040	.66020	318.20000	.00040
2.499	27.430	-.07260	-.00160	.00400	-.01080	.00210	-.00070	.65990	318.20000	.00050
2.499	GRADIENT	-.00167	-.00071	.00015	-.00008	-.00032	.00011	.09477	.00000	-.00008

RUN NO. 507/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMP/D	CY	CYN	CBL	CYV	CYNV	ACP/L	Q	CBLV
3.000	-.661	-.01590	.00230	.00110	-.00430	.00210	-.00080	.46280	285.50000	.00060
3.000	.089	-.01700	.00170	.00110	-.00440	.00170	-.00070	.38050	285.50000	.00050
3.000	1.098	-.01710	.00120	.00120	-.00450	.00130	-.00050	2.18900	285.50000	.00040
3.000	3.119	-.01700	-.00010	.00150	-.00480	.00040	-.00020	.74880	285.50000	.00020
3.000	5.141	-.01930	-.00050	.00170	-.00520	.00090	-.00030	.69840	285.50000	.00020
3.000	7.161	-.02210	-.00110	.00190	-.00560	.00130	-.00050	.68190	285.50000	.00030
3.000	9.188	-.02410	-.00180	.00220	-.00610	.00100	-.00040	.67220	285.50000	.00030
3.000	12.230	-.02520	-.00150	.00260	-.00680	.00110	-.00040	.66140	285.50000	.00040
3.000	15.270	-.03120	-.00180	.00300	-.00750	.00150	-.00060	.65930	285.50000	.00050
3.000	18.320	-.03570	-.00230	.00330	-.00840	.00080	-.00030	.65710	285.50000	.00040
3.000	21.480	-.03720	-.00210	.00360	-.00930	.00070	-.00020	.65970	285.50000	.00030
3.000	24.410	-.04250	-.00250	.00390	-.01000	.00080	-.00030	.65790	285.50000	.00030
3.000	27.280	-.05690	-.00230	.00390	-.01060	.00100	-.00040	.65620	285.50000	.00030
3.000	GRADIENT	-.00022	-.00062	.00011	-.00013	-.00044	.00016	.12675	.00000	-.00010

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C M F M V NOM. RN/L

(AEL006) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0500 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 7.500  
 ALLRON = -7.500 BDFLAP = -11.700  
 SPCBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = 15.000

RUN NO. 508/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-0.873	-0.02150	.00170	.00120	-.00340	.00280	-.00100	.44860	249.10000	.00070
3.496	-1.159	-0.01790	.00260	.00120	-.00340	.00240	-.00090	.43850	249.10000	.00060
3.496	.852	-0.01920	.00170	.00140	-.00360	.00150	-.00060	-.02080	249.10000	.00040
3.496	2.866	-0.01860	.00050	.00170	-.00410	.00120	-.00050	.82660	249.10000	.00040
3.496	4.876	-0.02020	-.00080	.00180	-.00460	.00090	-.00030	.72280	249.10000	.00030
3.496	6.900	-0.01790	-.00120	.00200	-.00510	.00080	-.00030	.68100	249.10000	.00030
3.496	8.923	-0.02180	-.00170	.00230	-.00570	.00060	-.00020	.67410	249.10000	.00030
3.496	11.950	-0.02520	-.00190	.00260	-.00660	.00050	-.00020	.66600	249.10000	.00030
3.496	14.990	-0.02680	-.00220	.00300	-.00750	.00040	-.00020	.65850	249.10000	.00040
3.496	16.030	-0.03140	-.00250	.00330	-.00850	.00020	-.00010	.65650	249.10000	.00050
3.496	21.060	-0.03740	-.00260	.00380	-.00950	-.00050	.00020	.65600	249.10000	.00020
3.496	24.110	-0.04230	-.00260	.00410	-.01040	-.00050	.00020	.65460	249.10000	.00010
3.496	26.980	-0.04770	-.00290	.00430	-.01120	-.00020	.00010	.65410	249.10000	.00020
3.496	GRADIENT	.00003	-.00052	.00012	-.00022	-.00032	.00012	.07980	.00000	-.00006

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C N F W V HIGH RW/L

(AEL007) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = 15.000  
 ALLCON = .000 BDFLAP = 16.300  
 SPBRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

## PARAMETRIC DATA

RUN NO. 424/ 0 RW/L = 3.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.498	-1.617	-0.04060	.00330	-.00030	.00010	.00070	-.00060	-1.21200	843.50000	.00050
2.498	-1.150	-.04250	.00310	-.00020	.00000	.00080	-.00060	3.29600	843.50000	.00050
2.498	1.409	-.04620	.00260	-.00040	.00010	.00030	-.00040	.95000	843.50000	.00040
2.498	3.475	-.05140	.00180	-.00040	.00020	.00040	-.00040	.79630	843.50000	.00030
2.498	5.550	-.05610	.00170	-.00040	.00010	.00090	-.00050	.74770	843.50000	.00040
2.498	7.625	-.06090	.00210	-.00070	.00030	.00080	-.00090	.72290	843.50000	.00040
2.498	9.704	-.06580	.00230	-.00070	.00030	.00080	-.00090	.70830	843.50000	.00040
2.498	12.840	-.07450	.00240	-.00090	.00080	.00050	-.00090	.69510	843.50000	.00040
2.498	15.970	-.08850	.00250	-.00100	.00080	.00050	-.00090	.67670	843.50000	.00050
2.498	19.110	-.10010	.00200	-.00120	.00110	.00060	-.00090	.66630	843.50000	.00040
2.498	22.250	-.11480	.00230	-.00140	.00140	.00060	-.00090	.64330	843.50000	.00030
2.498	25.410	-.13050	.00220	-.00170	.00160	.00050	-.00090	.62880	843.50000	.00030
2.498	28.030	-.14360	.00180	-.00180	.00190	-.00020	.00000	.68190	843.50000	.00020
2.498	GRADIENT	-.00257	-.00036	-.00004	.00004	-.00010	.00006	.04083	.00000	-.00005

RUN NO. 430/ 0 RW/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.000	-1.651	-.03950	.00370	.00010	.00000	.00090	-.00060	.55280	614.60000	.00050
3.000	-1.178	-.04020	.00280	.00010	.00000	.00070	-.00050	-.55360	614.60000	.00050
3.000	1.354	-.04040	.00160	.00010	.00000	.00010	-.00030	1.20600	614.60000	.00030
3.000	3.393	-.04250	.00090	.00000	.00000	.00020	-.00030	.83020	614.60000	.00030
3.000	5.443	-.04590	.00080	-.00010	.00010	.00040	-.00030	.75760	614.60000	.00030
3.000	7.493	-.05040	.00120	-.00030	.00010	.00070	-.00040	.72560	614.60000	.00030
3.000	9.552	-.05400	.00160	-.00030	.00020	.00060	-.00040	.70750	614.60000	.00030
3.000	12.640	-.06420	.00150	-.00050	.00030	.00060	-.00040	.69650	614.60000	.00040
3.000	15.730	-.07490	.00210	-.00060	.00060	.00080	-.00040	.68960	614.60000	.00030
3.000	18.930	-.06500	-.00010	-.00080	.00070	.00030	-.00030	.66680	614.60000	.00030
3.000	21.930	-.10130	.00210	-.00100	.00100	.00040	-.00030	.63380	614.60000	.00030
3.000	25.030	-.11550	.00180	-.00140	.00120	.00030	-.00030	.68210	614.60000	.00030
3.000	27.610	-.12830	.00290	-.00210	.00160	.00040	-.00030	.68130	614.60000	.00040
3.000	GRADIENT	-.00068	-.00065	-.00002	.00000	-.00018	.00007	.30210	.00000	-.00006

DATE 15 JUL 74

TABULATED SOURCE DATA - OAS3C

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ARC 87-747 OAS3C B C W F M V HIGH RN/L

(AEL007) (07 MAR 74)

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 20.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEVON = 15.000  
ALCON = .000 BDCLAP = 16.300  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = 15.000 ELEV-R = 15.000

PARAMETRIC DATA

RUN NO. 429/ 0 RN/L = 2.47 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFLC	CY	CYN	CBL	CYV	CYV	XCP/L	Q	CBLV
3.498	-0.878	-0.03630	.00260	.00040	.00000	.00260	.00100	.23300	388.50000	.00070
3.498	-0.409	-0.03600	.00230	.00040	.00000	.00270	.00100	.15220	388.50000	.00070
3.498	1.108	-0.03660	.00130	.00040	.00010	.00130	-.00060	2.30700	388.50000	.00040
3.498	3.134	-0.03730	.00040	.00040	.00010	.00080	-.00040	.88090	388.50000	.00040
3.498	5.160	-0.03910	-.00060	.00030	-.00020	.00080	-.00040	.76650	388.50000	.00040
3.498	7.191	-0.04340	.00030	.00030	-.00010	.00050	-.00030	.72900	388.50000	.00030
3.498	9.222	-0.04830	-.00030	.00020	.00000	.00020	-.00020	.71180	388.50000	.00030
3.498	12.270	-0.05740	.00100	.00000	.00000	.00020	-.00020	.69760	388.50000	.00040
3.498	15.330	-0.06780	.00120	-.00010	.00000	.00000	-.00020	.69090	388.50000	.00030
3.498	18.390	-.08120	.00090	-.00030	.00010	-.00010	-.00010	.68760	388.50000	.00030
3.498	21.450	-.09450	.00080	-.00040	.00010	-.00140	.00040	.68500	388.50000	.00000
3.498	24.520	-.10600	.00070	-.00050	.00040	-.00160	.00050	.68200	388.50000	.00000
3.498	27.070	-.11800	.00040	-.00080	.00050	-.00190	.00050	.68080	388.50000	.00000
	GRADIENT	-.00029	-.00055	.00000	-.00003	-.00050	.00016	.24584	-.00000	-.00008

DATE 15 JUL 74

TABULATED SOURCE DATA - OAS3C

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ARC 87-747 OAS3C B C M F M V NOM. RN/L

(AELO06) (07 MAR 74)

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LEEF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 20.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
AILRON = .000 BDFLAP = 16.300  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 423/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYV	KCP/L	Q	CBLV
2.498	-1.570	-.04190	.00210	-.00020	-.00010	.00380	-.00150	-9.62800	322.20000	.00080
2.498	-1.112	-.04230	.00120	-.00030	.00000	.00360	-.00140	6.12500	322.20000	.00070
2.498	1.412	-.04320	-.00080	-.00040	.00000	.00310	-.00120	.96690	322.20000	.00060
2.498	3.435	-.05260	-.00010	-.00020	.00000	.00240	-.00090	.80050	322.20000	.00050
2.498	5.466	-.05590	-.00060	-.00020	.00010	.00250	-.00090	.74780	322.20000	.00050
2.498	7.495	-.06170	-.00090	-.00060	.00000	.00290	-.00110	.72620	322.20000	.00060
2.498	9.524	-.06860	-.00130	-.00050	.00010	.00260	-.00100	.71300	322.20000	.00050
2.498	12.570	-.07610	-.00010	-.00060	.00010	.00320	-.00120	.69820	322.20000	.00070
2.498	15.620	-.08950	-.00060	-.00090	.00040	.00370	-.00140	.69280	322.20000	.00070
2.498	18.680	-.10260	-.00120	-.00080	.00040	.00290	-.00100	.68870	322.20000	.00060
2.498	21.730	-.11870	-.00100	-.00110	.00080	.00240	-.00080	.68710	322.20000	.00050
2.498	24.790	-.13780	-.00130	-.00120	.00110	.00270	-.00090	.68650	322.20000	.00050
2.498	27.340	-.15070	-.00040	-.00170	.00130	.00310	-.00110	.68500	322.20000	.00060
2.498	GRADIENT	-.00269	-.00054	.00000	.00002	-.00035	.00015	1.09511	.00000	-.00007

RUN NO. 426/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYV	KCP/L	Q	CBLV
3.001	-.613	-.03720	.00180	.00000	-.00010	.00260	-.00100	.10210	291.20000	.00070
3.001	-.154	-.03780	.00150	.00000	.00000	.00220	-.00090	-.11710	291.20000	.00060
3.001	1.358	-.03860	.00090	-.00010	.00000	.00160	-.00070	1.38100	291.20000	.00050
3.001	3.582	-.04020	-.00270	-.00010	-.00010	.00120	-.00050	.82870	291.20000	.00040
3.001	5.402	-.04510	-.00140	-.00010	-.00010	.00150	-.00060	.76190	291.20000	.00040
3.001	7.432	-.04750	-.00290	-.00010	-.00010	.00150	-.00050	.72260	291.20000	.00040
3.001	9.452	-.05260	-.00110	-.00010	.00000	.00160	-.00060	.70970	291.20000	.00040
3.001	12.500	-.06400	-.00080	-.00040	.00000	.00190	-.00070	.69820	291.20000	.00050
3.001	15.530	-.07510	-.00040	-.00050	.00030	.00230	-.00080	.69170	291.20000	.00060
3.001	18.580	-.08900	-.00120	-.00070	.00040	.00150	-.00060	.68830	291.20000	.00050
3.001	21.630	-.10320	-.00060	-.00090	.00060	.00140	-.00050	.68670	291.20000	.00050
3.001	24.680	-.11860	-.00040	-.00120	.00090	.00120	-.00040	.68400	291.20000	.00040
3.001	27.230	-.13440	-.00010	-.00170	.00120	.00140	-.00050	.68410	291.20000	.00040
3.001	GRADIENT	-.00073	-.00110	-.00003	-.00001	-.00033	.00012	.25203	.00000	-.00007

DATE 15 JUL 74

TABULATED SOURCE DATA - OAS3C

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ARC 87-747 OAS3C B C H F W V NOM. RNVL

(AELD08) (07 MAR 74)

REFERENCE DATA

SREF = 2.4210 SQ.FT.  
LREF = 14.2440 IN.  
CREF = 28.1554 IN.  
SCALE = .0350 SCALE

WARP = 32.3010 IN.  
WARP = .0000 IN.  
WARP = 11.2500 IN.

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
AILRON = .000 BOFLAP = 16.300  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = 15.000 ELEV-R = 5.000

RUN NO. 428/0 RNVL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CLMP/D	CY	CYN	CBL	CYV	CYV	KEP/L	Q	CBLV
3.498	-0.860	-0.3510	.00120	.00030	-.00010	.00310	-.00110	.28860	253.40000	.00070
3.498	-0.396	-0.3740	.00260	.00040	-.00010	.00290	-.00110	.20300	253.40000	.00070
3.498	-0.190	.06900	.00150	.00060	-.00020	.00320	-.00120	.56870	253.40000	.00070
3.498	1.110	-0.3630	-.00010	.00030	-.00020	.00210	-.00080	-57.29000	253.40000	.00050
3.498	3.135	-0.3620	-.00170	.00040	-.00020	.00170	-.00070	.88740	253.40000	.00050
3.498	5.148	-0.3690	-.00110	.00030	-.00020	.00180	-.00070	.76800	253.40000	.00050
3.498	7.173	-0.4360	-.05130	.00030	-.00020	.00170	-.00060	.73320	253.40000	.00040
3.498	9.193	-0.4700	-.01190	.00020	-.00020	.00130	-.00050	.71230	253.40000	.00040
3.498	12.220	-0.5570	-.00090	-.00010	-.00030	.00130	-.00050	.69710	253.40000	.00050
3.498	15.260	-0.6840	-.00050	-.00010	-.00010	.00140	-.00030	.69230	253.40000	.00050
3.498	18.300	-0.8040	-.00140	-.00010	.00000	.00070	-.00010	.68780	253.40000	.00040
3.498	21.340	-0.9330	-.00160	-.00040	.00000	.00020	-.00010	.68320	253.40000	.00020
3.498	24.380	-.0770	-.00170	-.00070	.00020	.00020	.00000	.68220	253.40000	.00030
3.498	26.920	-.12010	-.00190	-.00090	.00020	.00040	-.00010	-.2.90335	.00000	-.00006
3.498	GRADIENT	-.00761	-.00093	-.00001	-.00002	-.00039	.00012			

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C N F M V LOW RN/L

(AEL009) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0050 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 AILRON = .000 BDFLAP = 16.300  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 422/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.498	-1.555	-0.03350	-0.00250	-0.00030	-0.00020	.09610	-.00210	-6.15500	133.00000	.00090
2.498	-.095	-0.03610	-0.00130	-0.00030	-0.00010	.03640	-.00220	-.40690	133.00000	.00090
2.498	1.414	-0.04310	-0.00670	-0.00050	-0.00030	.00390	-.00190	.99440	133.00000	.00080
2.498	3.422	-0.04400	-0.01710	-0.00080	-0.00020	.00380	-.00190	.79050	133.00000	.00070
2.498	5.431	-0.05450	-0.00310	-0.00030	-0.00010	.00370	-.00180	.75630	133.00000	.00060
2.498	7.444	-0.05980	-0.00670	-0.00040	-0.00010	.00370	-.00180	.72820	133.00000	.00070
2.498	9.462	-0.06030	-0.00670	-0.00030	-0.00020	.00320	-.00170	.70520	133.00000	.00060
2.498	12.490	-0.07180	-0.00670	-0.00050	-0.00000	.00360	-.00180	.69660	133.00000	.00080
2.498	15.510	-0.08590	-0.00620	-0.00040	-0.00020	.00630	-.00200	.69090	133.00000	.00090
2.498	18.520	-0.10030	-0.00620	-0.00070	-0.00000	.00650	-.00210	.68890	133.00000	.00090
2.498	21.540	-0.11430	-0.01000	-0.00110	-0.00060	.00630	-.00200	.68610	133.00000	.00090
2.498	24.570	-0.14050	-0.00480	-0.00120	-0.00110	.00650	-.00200	.68790	133.00000	.00080
2.498	27.090	-0.15350	-0.00470	-0.00140	-0.00120	.00670	-.00210	.68710	133.00000	.00090
2.498	GRADIENT	-0.00264	-0.00390	-0.00013	-0.00002	-.00012	-.00007	1.30263	.00000	-.00005

RUN NO. 425/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-1.595	-0.02860	-0.00080	-0.00020	-0.00020	.00170	-.00070	.39250	120.60000	.00060
3.001	-1.137	-0.03060	-0.00670	-0.00040	-0.00030	.00150	-.00050	.24070	120.60000	.00050
3.001	1.367	-0.03240	.00000	.00050	.00020	.00200	-.00070	-.93270	120.60000	.00050
3.001	3.373	-0.03380	.00020	-0.00010	-0.00020	.00240	-.00070	.88150	120.60000	.00050
3.001	5.384	-0.03830	-0.00070	-0.00020	-0.00010	.00220	-.00060	.75660	120.60000	.00050
3.001	7.393	-0.04030	-0.00350	-0.00010	-0.00010	.00240	-.00070	.72250	120.60000	.00050
3.001	9.406	-0.05020	-0.00220	-0.00010	-0.00020	.00240	-.00070	.71140	120.60000	.00060
3.001	12.420	-0.05390	-0.00460	-0.00010	-0.00020	.00250	-.00070	.69540	120.60000	.00060
3.001	15.440	-0.06950	-0.00350	-0.00040	-0.00020	.00330	-.00100	.68840	120.60000	.00080
3.001	18.470	-0.08210	-0.00410	-0.00050	-0.00030	.00330	-.00090	.68510	120.60000	.00070
3.001	21.480	-0.10000	-0.00540	-0.00070	-0.00060	.00320	-.00080	.68540	120.60000	.00070
3.001	23.500	-0.11460	-0.00520	-0.00080	-0.00080	.00360	-.00100	.68670	120.60000	.00070
3.001	27.020	-0.13450	-0.00760	-0.00140	-0.00130	.00330	-.00080	.68490	120.60000	.00070
3.001	GRADIENT	-0.00119	.00098	.00006	.00001	.00021	-.00002	.08761	.00000	-.00002

DATE 15 JUL 74

TABULATED SOURCE DATA - CASSC

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ARC 87-747 CASSC B C N F M V LOW RN/L

(AEL009) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 50.FT.  
LREF = 14.2440 IN.  
BREF = 28.1004 IN.  
SCALE = .0000 SCALE

YMRP = 32.3010 IN.  
YMRP = .0000 IN.  
ZMRP = 11.2500 IN.

BETA = .000 ELEVON = 15.000  
AIRCON = .000 BCFAP = 16.300  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = 15.000 ELEV-R = 15.000

## PARAMETRIC DATA

RUN NO. 427/ 0 RN/L = .74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCF/L	Q	CBLV
3.498	-8.40	-.02960	-.01090	-.00010	-.00040	.00270	-.00090	.44600	103.30000	.00080
3.498	-3.67	-.02250	-.00350	.00010	-.00040	.00330	-.00110	.53880	103.30000	.00090
3.498	1.126	-.02360	-.00040	.00020	-.00030	.00290	-.00090	.24320	103.30000	.00070
3.498	3.126	-.02810	-.00910	.00010	-.00040	.00250	-.00060	.98470	103.30000	.00060
3.498	5.135	-.02970	-.00260	.00040	-.00040	.00260	-.00070	.79700	103.30000	.00070
3.498	7.150	-.03120	-.00450	-.00020	-.00050	.00320	-.00080	.72320	103.30000	.00070
3.498	9.150	-.03780	-.00700	.00000	-.00060	.00250	-.00070	.70630	103.30000	.00070
3.498	12.170	-.03970	-.00710	.00020	-.00060	.00300	-.00080	.68480	103.30000	.00070
3.498	15.180	-.03770	-.00510	.00020	-.00030	.00380	-.00100	.68850	103.30000	.00080
3.498	18.200	-.06950	-.00660	.00000	-.00020	.00340	-.00090	.68390	103.30000	.00080
3.498	21.210	-.08970	-.00740	.00000	-.00010	.00320	-.00070	.68520	103.30000	.00070
3.498	24.240	-.10790	-.00740	-.00020	.00010	.00270	-.00060	.68500	103.30000	.00050
3.498	26.750	-.11280	-.00940	-.00060	.00030	.00280	-.00060	.68050	103.30000	.00070
3.498	GRADIENT	-.00030	-.00003	.00004	.00000	-.00024	.00010	.11403	.00000	-.00007



(AEL010) ( 07 MAR 74 )

## REFERENCE DATA

SECF = 2.4210 SQ.FT.  
 LECF = 14.2440 IN.  
 BRECF = 28.1004 IN.  
 SCALE = .0300 SCALE

WREF = 32.3010 IN.  
 YREF = .0000 IN.  
 ZREF = 11.2300 IN.

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AIRLON = .000 BCFAP = 16.300  
 SPDRK = 55.000 RUDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 372/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFLQ	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-1.564	-0.00730	.00410	-0.00090	-0.00010	.00190	-0.00090	.56070	327.20000	.00080
2.499	.133	-0.01030	.00200	-0.00040	-0.00020	.00170	-0.00080	.44770	327.20000	.00070
2.499	1.406	-0.01230	.00190	-0.00030	-0.00010	.00110	-0.00060	.91420	327.20000	.00060
2.499	3.416	-0.01650	.00090	-0.00050	-0.00010	.00060	-0.00040	.71340	327.20000	.00050
2.499	5.475	-0.02100	.00090	-0.00090	-0.00010	.00080	-0.00040	.68840	327.20000	.00050
2.499	7.503	-0.02720	.00080	-0.00090	-0.00010	.00090	-0.00050	.68080	327.20000	.00050
2.499	9.536	-0.02880	.00080	-0.00040	-0.00020	.00090	-0.00050	.67140	327.20000	.00050
2.499	12.570	-0.03480	.00100	-0.00060	-0.00020	.00140	-0.00070	.66620	327.20000	.00070
2.499	15.610	-0.04240	.00130	-0.00060	-0.00020	.00160	-0.00070	.66370	327.20000	.00060
2.499	18.690	-0.05390	-0.00250	-0.00070	-0.00030	.00090	-0.00040	.66460	327.20000	.00160
2.499	21.740	-0.06160	.00110	-0.00090	-0.00030	-0.00030	-0.00030	.66310	327.20000	.00040
2.499	24.780	-0.07530	.00080	-0.00120	-0.00060	-0.00030	-0.00030	.66440	327.20000	.00040
2.499	27.420	-0.08490	.00060	-0.00150	-0.00080	.00030	-0.00020	.66440	327.20000	.00040
2.499	GRADIENT	-0.00216	-0.00060	-0.00050	.00000	-0.00033	.00013	.06243	.00000	-0.00007

RUN NO. 371/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFLQ	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.002	-1.608	-0.01540	.00360	-0.00020	-0.00010	.00160	-0.00070	.49770	287.30000	.00070
3.002	-1.146	-0.01470	.00300	-0.00010	-0.00020	.00110	-0.00050	.48860	287.30000	.00050
3.002	.085	-0.01700	.00400	-0.00010	-0.00040	.00160	-0.00070	.39340	287.30000	.00060
3.002	1.359	-0.01560	.00340	-0.00020	-0.00010	.00100	-0.00050	1.64900	287.30000	.00050
3.002	3.373	-0.01590	.00120	-0.00010	-0.00010	.00010	-0.00010	.73940	287.30000	.00030
3.002	5.444	-0.01910	-0.00340	-0.00020	-0.00020	.00040	-0.00020	.69850	287.30000	.00030
3.002	7.431	-0.02170	.00090	-0.00010	-0.00010	.00080	-0.00030	.68030	287.30000	.00040
3.002	9.463	-0.02290	.00040	-0.00020	-0.00010	.00080	-0.00030	.66920	287.30000	.00040
3.002	12.499	-0.02930	.00020	-0.00030	-0.00000	.00100	-0.00030	.66580	287.30000	.00050
3.002	15.560	-0.03530	.00040	-0.00030	-0.00000	.00140	-0.00060	.66240	287.30000	.00050
3.002	18.580	-0.04420	.00020	-0.00070	-0.00010	.00060	-0.00030	.66250	287.30000	.00050
3.002	21.640	-0.05130	-0.00100	-0.00070	-0.00030	.00000	-0.00010	.66110	287.30000	.00030
3.002	24.680	-0.06270	-0.00020	-0.00100	-0.00040	.00020	-0.00010	.66200	287.30000	.00030
3.002	27.270	-0.07090	.00010	-0.00130	-0.00070	.00020	-0.00010	.66190	287.30000	.00030
3.002	GRADIENT	-0.00009	-0.00050	.00001	.00003	-0.00036	.00014	.12911	.00000	-0.00008

DATE 15 JUL 74

TABULATED SOURCE DATA - QASXC

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ARC 87-747 QASXC B C H F M V NON. RUN L

(AELOIS) (07 MAR 74)

REFERENCE DATA

SREF = 2.4210 36.FT. WREF = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0375 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000  
AILRON = .000 BDFLAP = 16.300  
SPBRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 375/0 RML = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CLFMD	CT	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.498	-8.50	-.02180	-.00130	-.00020	-.00040	.00130	-.00060	.41220	250.70000	.00070
3.498	-3.80	-.02050	.00330	.00030	-.00040	.00140	-.00060	.41610	250.70000	.00060
3.498	1.105	-.01860	.00400	.00000	-.00050	-.00010	-.00020	-21.62000	250.70000	.00040
3.498	3.155	-.01790	.00300	.00000	-.00050	-.00040	.00000	.79120	250.70000	.00040
3.498	5.149	-.01670	.00250	.00010	-.00060	-.00020	.00000	.70800	250.70000	.00040
3.498	7.157	-.01750	.00110	.00010	-.00070	-.00040	.00010	.67600	250.70000	.00030
3.498	9.194	-.02110	.00080	.00000	-.00060	-.00060	.00010	.67190	250.70000	.00030
3.498	12.240	-.02280	-.00010	-.00010	-.00060	-.00060	.00010	.66100	250.70000	.00040
3.498	15.280	-.02540	.00120	-.00020	-.00050	.00070	.00030	.66010	250.70000	.00040
3.498	18.290	-.03740	-.00120	-.00030	-.00050	-.00100	.00000	.65910	250.70000	.00010
3.498	21.320	-.04360	.00080	-.00040	-.00040	-.00210	.00070	.65840	250.70000	.00010
3.498	24.400	-.05120	-.00320	.00000	-.00020	-.00180	.00060	.65840	250.70000	.00020
3.498	26.930	-.05830	-.00040	-.00090	-.00020	-.00170	.00060	.65840	250.70000	.00020
3.498	GRADIENT	.00114	.00071	-.00020	-.00003	-.00048	.00016	-.69271	.00000	-.00057

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

PAGE 101

ARC 87-747 0453C B C M F W V NCM. RNVL

(AEL011) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SA.FT.    ZMRP = 32.3010 IN.  
 LREF = 14.2440 IN.    YMRP = .0000 IN.  
 BREF = 28.1004 IN.    ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000    ELEVON = .000  
 ALURON = .000    BDFLAP = -11.700  
 SPBRK = 55.000    RUDDER = .000  
 ELEV-L = .000    ELEV-R = .000

RUN NO. 395/ 0    RNVL = 1.74    GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFLD	CY	CYN	CBL	CYV	CYNV	KCP/L	Q	CBLV
2.900	-1.566	.00430	.00200	-.00010	-.00020	.00420	-.00160	.66100	321.90000	.00080
2.900	-1.132	.00290	.00150	-.00010	-.00030	.00330	-.00130	.65640	321.90000	.00060
2.900	1.416	.00040	.00030	-.00020	-.00030	.00030	-.00020	.67900	321.90000	.00060
2.900	3.418	-.00260	-.00140	-.00020	-.00030	.00280	-.00100	.64910	321.90000	.00050
2.900	5.467	-.00760	-.00170	-.00020	-.00030	.00320	-.00110	.65610	321.90000	.00050
2.900	7.496	-.01000	-.00100	-.00020	-.00020	.00340	-.00120	.65260	321.90000	.00050
2.900	9.531	-.01130	-.00060	-.00040	-.00030	.00320	-.00120	.64910	321.90000	.00060
2.900	12.570	-.01340	-.00180	-.00030	-.00010	.00400	-.00140	.64650	321.90000	.00070
2.900	15.630	-.02020	-.00210	-.00040	.00000	.00400	-.00140	.64840	321.90000	.00070
2.900	18.680	-.02210	-.00150	-.00040	.00010	.00350	-.00120	.64660	321.90000	.00070
2.900	21.740	-.03010	-.00090	-.00050	.00030	.00240	-.00090	.64330	321.90000	.00090
2.900	24.800	-.03940	-.00120	-.00100	.00050	.00260	-.00090	.65000	321.90000	.00050
2.900	27.840	-.04330	-.00010	-.00130	.00070	.00350	-.00120	.64960	321.90000	.00060
2.900	GRADIENT	-.00167	-.00084	-.00053	-.00002	-.00027	.00013	-.00169	.00000	-.00006

RUN NO. 399/ 0    RNVL = 1.74    GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFLD	CY	CYN	CBL	CYV	CYNV	KCP/L	Q	CBLV
3.002	-1.612	-.00950	.00020	.00020	.00090	.00280	-.00110	.57350	219.30000	.00060
3.002	-1.156	-.00640	-.00030	.00020	.00090	.00270	-.00110	.57310	289.30000	.00060
3.002	.081	-.00720	.00020	.00020	.00110	.00370	-.00140	.57680	289.30000	.00070
3.002	1.361	-.00640	-.00140	.00010	.00090	.00220	-.00090	.40030	289.30000	.00040
3.002	3.382	-.00700	-.00250	.00010	.00090	.00180	-.00070	.70500	289.30000	.00030
3.002	5.405	-.00600	-.00300	.00020	.00090	.00220	-.00080	.65800	289.30000	.00030
3.002	7.432	-.00570	-.00330	.00010	.00080	.00270	-.00100	.64670	289.30000	.00040
3.002	9.468	-.00660	-.00480	.00010	.00100	.00240	-.00090	.64490	289.30000	.00040
3.002	12.500	-.00900	-.00420	.00010	.00100	.00270	-.00100	.64370	289.30000	.00050
3.002	15.540	-.01310	-.00450	.00010	.00110	.00300	-.00110	.64470	289.30000	.00060
3.002	18.580	-.01700	-.00350	-.00030	.00130	.00240	-.00090	.64540	289.30000	.00050
3.002	21.630	-.02220	-.00410	-.00040	.00150	.00280	-.00100	.64570	289.30000	.00050
3.002	24.680	-.02690	-.00500	-.00050	.00150	.00290	-.00100	.64590	289.30000	.00050
3.002	27.730	-.03240	-.00500	-.00100	.00170	.00280	-.00100	.64660	289.30000	.00050
3.002	GRADIENT	.00041	-.00068	-.00003	-.00001	-.00033	.00013	.02314	.00000	-.00009

ARC 87-747 QASSC B C H P M V NOL RNL

(UEL011) ( 27 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 50-FT. WREF = 32.3910 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 20.1094 IN. ZREF = 11.2590 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AILRON = .000 BCFAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 403/ U RNL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CLMP/D	CY	CYN	CBL	CYV	CYV	WCP/L	Q	CBLV
3.496	-0.850	-0.01350	.00960	.00030	.00070	.00300	-.00140	.35080	254.80000	.00070
3.496	-1.400	-0.01290	.00110	.00060	.00070	.00350	-.00130	.54430	254.80000	.00070
3.496	1.115	-0.01110	.00100	.00050	.00070	.00250	-.00100	.39720	254.80000	.00050
3.496	3.131	-0.01130	-.00150	.00040	.00060	.00240	-.00090	.78750	254.80000	.00040
3.496	5.148	-0.00790	-.00170	.00040	.00050	.00240	-.00090	.67220	254.80000	.00050
3.496	6.165	-0.00760	-.00400	.00030	.00050	.00240	-.00080	.66190	254.80000	.00040
3.496	9.196	-0.00690	-.00160	.00040	.00050	.00200	-.00070	.64670	254.80000	.00040
3.496	12.230	-0.00670	-.00310	.00030	.00050	.00220	-.00080	.64460	254.80000	.00050
3.496	15.260	-0.01050	-.00350	.00030	.00060	.00190	-.00070	.64310	254.80000	.00040
3.496	16.350	-0.01200	-.00350	.00010	.00060	.00170	-.00060	.64210	254.80000	.00040
3.496	21.350	-0.01760	-.00370	.00000	.00050	.00110	-.00030	.64400	254.80000	.00030
3.496	24.300	-0.02120	-.00510	-.00020	.00060	.00120	-.00040	.64400	254.80000	.00030
3.496	26.920	-0.02260	-.00510	-.00040	.00060	.00120	-.00040	.64330	254.80000	.00030
3.496	GRADIENT	.00048	-.00056	-.00004	-.00002	-.00036	.00013	.05307	.00000	-.00008

REFERENCE DATA

SEEP = 2.4210 30-FT. WMP = 32.3010 IN.  
 LREF = 14.2445 IN. WMP = .0550 IN.  
 BREF = 20.1554 IN. WMP = 11.2500 IN.  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AILERON = .000 BDELAP = -11.750  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 396/ 0 RM/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLD	CY	CYN	QBL	CYV	CYNV	XP/L	Q	CBLV
2.500	-4.654	-.00130	.09510	-.00270	.00370	.03400	-.01700	.61700	323.30000	.01160
2.500	-2.669	.00070	.05610	-.00110	.00190	.02430	-.01090	.63960	323.30000	.00730
2.500	-.665	.00110	.01940	-.00040	.00060	.01140	-.00490	.64290	323.30000	.00300
2.500	.302	.00090	.00190	.00000	-.00020	.00400	-.00190	.64190	323.30000	.00080
2.500	1.325	.00330	-.01660	.00050	-.00090	-.00390	.00190	.66510	323.30000	-.00140
2.500	3.300	.0290	-.03200	.00140	-.00230	-.01770	.00490	.65620	323.30000	-.00590
2.500	5.432	-.00160	-.00990	.00310	-.00320	-.03220	.01510	.61770	323.30000	-.01030
2.500	7.116	-.00330	-.02360	.00500	-.00540	-.04590	.02130	.60010	323.30000	-.01400
	GRADIENT	.00049	-.01831	.00049	-.00074	-.00702	.00324	.00494	-.00000	-.00210

RUN NO. 400/ 0 RM/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

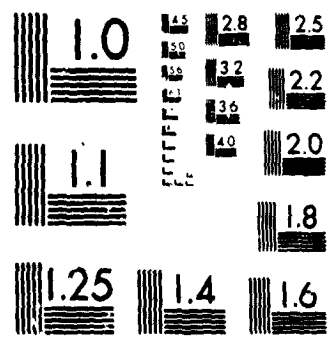
MACH	BETA	CLMFLD	CY	CYN	QBL	CYV	CYNV	XP/L	Q	CBLV
3.002	-4.629	-.01190	.09530	-.00340	.00510	.03760	-.01740	.52890	289.30000	.01110
3.002	-2.620	-.00490	.05560	-.00190	.00330	.02320	-.01070	.57260	289.30000	.00680
3.002	-.606	.00000	.01730	-.00020	.00170	.01040	-.00490	.56400	289.30000	.00280
3.002	.397	-.00010	.00170	.00040	.00110	.00330	-.00130	.55740	289.30000	.00070
3.002	1.434	-.00600	-.01890	.00100	-.00020	-.00380	.00210	.58190	289.30000	-.00130
3.002	3.521	-.00000	-.03570	.00210	-.00180	-.01750	.00390	.56490	289.30000	-.00560
3.002	5.610	-.00000	-.00390	.00360	-.00190	-.03180	.01900	.56190	289.30000	-.00970
3.002	7.325	-.00070	-.02440	.00530	-.00490	-.04290	.02020	.56690	289.30000	-.01290
	GRADIENT	.00029	-.01854	.00067	-.00084	-.00672	.00315	.00374	-.00000	-.00204

RUN NO. 404/ 0 RM/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLD	CY	CYN	QBL	CYV	CYNV	XP/L	Q	CBLV
3.490	-4.890	-.01690	.07190	-.00390	.00430	.03270	-.01510	.48620	254.90000	.00950
3.490	-2.751	-.01460	.05270	-.00160	.00270	.02090	-.00990	.51690	254.90000	.00590
3.490	.690	-.01320	.01810	.00000	.00120	.00990	-.00410	.52150	254.90000	.00250
3.490	.351	-.01340	.00110	.00040	.00090	.00370	-.00140	.54720	254.90000	.00070
3.490	1.427	-.01070	-.01700	.00190	-.00010	-.00310	.00170	.5570	254.90000	-.00090
3.490	3.577	-.01190	-.03700	.00210	-.00190	-.01520	.00730	.5470	254.90000	-.00460
3.490	5.717	-.01530	-.00860	.00350	-.00260	-.02000	.01330	.51650	254.90000	-.00830
3.490	7.400	-.01900	-.01940	.00410	-.00370	-.03600	.01760	.51830	254.90000	-.01100
	GRADIENT	.00065	-.01743	.00062	-.00066	-.00564	.00266	.00780	-.00000	-.00167

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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

PAGE 104

ARC 87-747 0453C B C M F M V NOM. RN/L

(AEL013) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000  
AILLEON = .000 BCFAP = -11.700  
SPBRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 397/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	COL	CYV	CYNV	XCF/L	Q	CBLV
2.500	-4.737	-0.1420	.08210	.00030	.00660	.02970	-.01400	.65070	323.30000	.00910
2.500	-2.722	-0.1270	.04740	.00040	.00370	.02020	-.00930	.64900	323.30000	.00610
2.500	-.708	-0.1050	.01390	.00020	.00100	.00880	-.00390	.64670	323.30000	.00240
2.500	.295	-0.0950	-.00080	-.00030	-.00010	.00300	-.00110	.64520	323.30000	.00060
2.500	1.308	-0.1190	-.01720	-.00060	-.00130	-.00190	-.00140	.64840	323.30000	-.00110
2.500	3.325	-0.1170	-.04990	-.00040	-.00400	-.01460	.00730	.64800	323.30000	-.00500
2.500	5.346	-0.1500	-.08310	-.00010	-.00730	-.02510	.01230	.65190	323.30000	-.00860
2.500	7.358	-0.1410	-.11630	-.00020	-.00980	-.03340	.01680	.65050	323.30000	-.01150
2.500	9.390	-.02100	-.15180	.00040	-.01300	-.04470	.02230	.65880	323.30000	-.01510
GRADIENT		.00034	-.01630	-.00012	-.00130	-.00549	.00264	-.00036	-.00000	-.00178

RUN NO. 401/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCF/L	Q	CBLV
3.002	-4.707	-0.1190	.07790	-.00010	.00790	.01650	-.01290	.65170	289.50000	.00880
3.002	-2.674	-0.0940	.04860	-.00030	.00520	.01840	-.00870	.64690	289.50000	.00570
3.002	-.617	-0.0890	.01360	.00000	.00190	.00760	-.00350	.64640	289.50000	.00230
3.002	.396	-0.0900	-.00240	.00010	.00050	.00260	-.00090	.64680	289.50000	.00050
3.002	1.417	-0.0910	-.01880	.00020	-.00110	-.00210	.00150	.64700	289.50000	-.00110
3.002	3.468	-0.1190	-.05250	.00060	-.00440	-.01450	.00720	.65080	289.50000	-.00490
3.002	5.516	-0.1260	-.08270	.00030	-.00710	-.02040	.01080	.65210	289.50000	-.00740
3.002	7.561	-0.1540	-.11610	.00140	-.01020	-.03270	.01650	.65570	289.50000	-.01110
3.002	9.612	-0.1850	-.14780	.00190	-.01300	-.04220	.02110	.65990	289.50000	-.01390
GRADIENT		.00013	-.01601	.00009	-.00151	-.00500	.00246	-.00012	.00000	-.00167

RUN NO. 405/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCF/L	Q	CBLV
3.498	-4.918	-0.1170	.07780	-.00010	.00910	.02470	-.01230	.65300	254.80000	.00820
3.498	-2.817	-0.1010	.04670	-.00080	.00570	.01570	-.00770	.65170	254.80000	.00510
3.498	-.686	-0.0640	.01240	-.00010	.00240	.00620	-.00390	.64430	254.80000	.00270
3.498	.354	-0.0640	-.00250	.00050	.00070	.00180	-.00070	.64430	254.80000	.00050
3.498	1.456	-0.0690	-.01810	.00090	-.00100	-.00240	.00150	.64520	254.80000	-.00110
3.498	3.521	-0.0780	-.05070	.00150	-.00420	-.01210	.00620	.64660	254.80000	-.00480
3.498	5.630	-0.1400	-.08130	.00160	-.00840	-.02190	.01110	.65730	254.80000	-.00730
3.498	7.745	-0.1570	-.11250	.00120	-.00990	-.03090	.01560	.66060	254.80000	-.01010
3.498	9.856	-0.1660	-.14570	.00020	-.01160	-.03710	.01850	.66240	254.80000	-.01290
GRADIENT		.00055	-.01525	.00035	-.00158	-.00435	.00220	-.00097	.00000	-.00146

REFERENCE DATA

SREF = 2.4210 SQ. FT. ZMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 29.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
AILLON = .000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 398/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBV
2.500	-4.733	-0.3390	.06630	.00930	.00800	.00070	-.00190	.65130	325.10000	.00250
2.500	-2.725	-0.2710	.03660	.00630	.00430	-.00130	-.00040	.64780	325.10000	.00120
2.500	-7.74	-0.2520	.00940	.00200	.00220	.00130	-.00070	.64680	325.10000	.00080
2.500	.236	-0.2650	-.00270	-.00060	.00100	.00290	-.00110	.64760	325.10000	.00060
2.500	1.299	-0.2530	-.01520	-.00290	-.00020	.00440	-.00140	.64690	325.10000	.00030
2.500	3.321	-0.2930	-.03870	-.00700	.00310	.00660	-.00140	.64910	325.10000	-.00030
2.500	5.346	-0.3100	-.06750	-.00910	-.00700	.00350	.00070	.64990	325.10000	-.00100
2.500	7.368	-0.3640	-.10050	-.01020	-.01160	.00430	.00430	.65280	325.10000	-.00200
2.500	9.461	-0.3420	-.13350	-.01190	-.01610	-.01090	.00760	.65160	325.10000	-.00600
	GRADIENT	.00557	-.01303	-.00209	-.00132	.00086	.00000	-.00027	-.00000	-.00032

RUN NO. 400/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBV
3.002	-4.712	-0.2620	.06580	.00640	.00970	.00730	-.00450	.64910	289.50000	.00370
3.002	-2.663	-0.2110	.03630	.00470	.00570	.00210	-.00170	.64610	289.50000	.00190
3.002	-.643	-0.1880	.00690	.00130	.00230	.00160	-.00080	.64470	289.50000	.00090
3.002	.377	-0.2150	-.00330	-.00030	.00070	.00270	-.00090	.64620	289.50000	.00050
3.002	1.403	-0.2020	-.01490	-.00240	-.00070	.01400	-.00440	.64540	289.50000	.00120
3.002	3.466	-0.2230	-.03920	-.00540	-.00430	.00230	.00020	.64670	289.50000	-.00110
3.002	5.524	-0.2470	-.06890	-.00700	-.00830	-.00260	.00270	.64810	289.50000	-.00270
3.002	7.579	-0.2680	-.09970	-.01000	-.01280	-.00920	.00600	.64940	289.50000	-.00470
3.002	9.624	-0.2880	-.13010	-.00880	-.01760	-.01190	.01930	.65060	289.50000	-.00620
	GRADIENT	.00542	-.01287	-.00150	-.00169	.00003	.00035	-.00027	.00000	-.00051

RUN NO. 406/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBV
3.498	-4.922	-0.1850	.06400	.00500	.01090	.00080	-.00500	.64540	254.70000	.00380
3.498	-2.815	-0.1980	.03360	.00390	.00650	.00380	-.00230	.64640	254.70000	.00220
3.498	-.714	-0.1580	.00710	.00180	.00260	.00100	-.00060	.64370	254.70000	.00080
3.498	.335	-0.1690	-.00400	.00010	.00080	.00280	-.000910	.64450	254.70000	.00030
3.498	1.402	-0.1360	-.01660	-.00140	-.00080	.00200	-.00040	.64220	254.70000	-.00010
3.498	3.516	-0.1880	-.04070	-.00370	-.00460	-.00030	.00120	.64560	254.70000	-.00140
3.498	5.635	-0.2060	-.06920	-.00520	-.00890	-.00630	.00420	.64700	254.70000	-.00320
3.498	7.715	-0.1900	-.09780	-.00730	-.01280	-.01150	.00660	.64590	254.70000	-.00480
3.498	9.873	-0.2030	-.12560	-.00900	-.01660	-.01660	.00920	.64690	254.70000	-.00650
	GRADIENT	.00527	-.01232	-.00107	-.00182	-.00046	.00022	-.00010	-.00000	-.00055



DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C H F M V LOW RN/L

(AEL015) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
AILRON = .000 BDFLAP = .000  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 380/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF40	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-1.551	.00320	.00880	-.00010	-.00010	.00060	-.00040	.65400	138.50000	.00050
2.499	-1.111	.00800	.00870	-.00020	-.00010	.00050	-.00030	.68980	138.50000	.00040
2.499	1.458	.00120	.00690	-.00010	-.00020	.00060	-.00030	.69200	138.50000	.00040
2.499	3.417	.00310	.00540	-.00030	-.00020	.00030	-.00010	.60920	138.50000	.00030
2.499	5.414	.00040	.00510	-.00030	-.00010	.00030	-.00010	.63120	138.50000	.00020
2.499	7.457	-.00260	.00310	-.00030	-.00020	.00010	-.00000	.63840	138.50000	.00020
2.499	9.457	-.01190	.00370	-.00020	-.00010	.00060	-.00020	.65070	138.50000	.00030
2.499	12.490	-.01050	.00310	-.00020	-.00010	.00010	-.00000	.64410	138.50000	.00050
2.499	15.510	-.01760	.00320	-.00030	-.00020	.00150	-.00050	.64680	138.50000	.00050
2.499	18.550	-.02780	.00160	-.00050	-.00050	.00110	-.00030	.65030	138.50000	.00050
2.499	21.540	-.03460	.00100	-.00070	-.00050	.00120	-.00030	.65070	138.50000	.00050
2.499	24.570	-.04390	.00110	-.00080	-.00090	.00140	-.00040	.63240	138.50000	.00050
2.499	27.150	-.05380	.00120	-.00120	-.00110	.00200	-.00050	.65380	138.50000	.00050
2.499	GRADIENT	-.00069	-.00090	-.00004	-.00003	-.00016	.00007	-.01366	.00000	-.00004

RUN NO. 377/ 0 RN/L = .76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF40	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-1.598	-.00860	.00570	-.00040	.00110	-.00230	.00060	.58370	122.60000	.00000
3.001	-1.112	-.00410	.00570	.00000	.00120	-.00220	.00060	.60850	122.60000	.00000
3.001	1.358	-.00410	.00370	-.00010	.00120	-.00240	.00070	.56450	122.60000	.00000
3.001	3.378	-.00390	.00390	-.00020	.00110	-.00190	.00060	.69920	122.60000	.00000
3.001	5.380	-.00540	.00230	-.00010	.00100	-.00200	.00070	.66130	122.60000	.00000
3.001	7.397	-.00390	.00360	-.00020	.00070	-.00140	.00050	.64410	122.60000	.00000
3.001	9.395	-.00740	.00430	-.00030	.00060	-.00140	.00050	.64700	122.60000	.00000
3.001	12.420	-.00760	.00280	-.00040	.00140	-.00120	.00040	.64290	122.60000	.00000
3.001	15.460	-.01070	.00130	-.00030	.00160	-.00110	.00040	.64310	122.60000	.00000
3.001	18.450	-.02320	-.00030	-.00050	.00160	-.00120	.00050	.65120	122.60000	.00000
3.001	21.480	-.02590	-.00310	-.00020	.00210	-.00120	.00050	.64820	122.60000	.00000
3.001	24.510	-.03630	-.01090	-.00110	.00190	-.00110	.00050	.65090	122.60000	.00000
3.001	27.040	-.04250	-.00260	-.00090	.00210	-.00120	.00050	.65120	122.60000	.00000
3.001	GRADIENT	.00080	-.00052	.00001	-.00001	.00008	.00000	.02591	.00000	.00002

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C H W L V LOW RN/L

(AEL015) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2900 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
 AILERON = .000 BDFLAP = .000  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

PARAMETRIC DATA

RUN NO. 374/ D RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CLMFO	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.438	-1.235	-0.01080	.00660	-.00040	-.00150	.00440	-.00130	.55080	98.64000	.00070
3.438	-1.376	-0.00730	.00950	-.00020	-.00160	.00400	-.00120	.58320	98.64000	.00070
3.438	1.121	-0.00490	.00630	.00000	-.00150	.00420	-.00120	.58780	98.64000	.00160
3.438	3.133	-0.00770	.00290	.00010	-.00140	.00420	-.00110	.97070	98.64000	.00050
3.438	5.156	-0.00670	.00320	.00010	-.00140	.00430	-.00110	.67780	98.64000	.00050
3.438	7.128	-0.01170	.00270	.00030	-.00190	.00410	-.00110	.63840	98.64000	.00050
3.438	9.161	-0.02250	.00220	.00020	-.00190	.00400	-.00110	.63840	98.64000	.00050
3.438	12.160	-0.00330	.00000	.00040	-.00200	.00370	-.00100	.63320	98.64000	.00050
3.438	15.180	-0.00590	.00070	-.00010	-.00170	.00400	-.00110	.63910	98.64000	.00050
3.438	18.220	-0.01260	-.00150	.00000	-.00160	.00410	-.00100	.64320	98.64000	.00050
3.438	21.220	-0.01680	-.00010	-.00020	-.00140	.00410	-.00100	.64330	98.64000	.00050
3.438	24.220	-0.03170	-.00020	-.00030	-.00120	.00390	-.00080	.65080	98.64000	.00030
3.438	26.770	-0.03950	-.00020	-.00050	-.00100	.00360	-.00090	.65130	98.64000	.00030
3.438	GRADIENT	.00057	-.00127	.00011	.00004	-.00001	.00002	.10137	.00000	-.00005

ARC 87-747 0453C B C M F W V NOK. RN/L

(AELS16) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000  
AILRON = .000 BDFLAP = .000  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 381/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFND	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-1.569	.00130	.00350	-.00030	-.00020	.00140	-.00070	.64120	330.10000	.00660
2.499	-.098	.00030	.00320	-.00020	-.00020	.00130	-.00070	.63500	330.10000	.00050
2.499	1.432	-.00090	.00290	-.00020	-.00010	.00080	-.00050	-.10800	330.10000	.00040
2.499	3.477	-.00550	.00160	-.00020	-.00010	.00060	-.00030	.66750	330.10000	.00030
2.499	5.462	-.00760	.00120	-.00020	-.00010	.00060	-.00030	.65620	330.10000	.00030
2.499	7.490	-.01060	.00160	-.00020	-.00010	.00080	-.00040	.65420	330.10000	.00030
2.499	9.514	-.01220	.00120	-.00030	.00000	.00080	-.00040	.65070	330.10000	.00030
2.499	12.590	-.01350	.00150	-.00040	.00000	.00140	-.00060	.65150	330.10000	.00050
2.499	15.640	-.02450	.00230	-.00050	.00010	.00180	-.00070	.65160	330.10000	.00050
2.499	18.750	-.02860	.00220	-.00060	.00030	.00150	-.00050	.65050	330.10000	.00040
2.499	21.750	-.03300	.00210	-.00070	.00030	.00050	-.00020	.65130	330.10000	.00030
2.499	24.830	-.04770	.00200	-.00110	.00060	.00080	-.00030	.65350	330.10000	.00040
2.499	27.350	-.05430	.00250	-.00140	.00090	.00130	-.00050	.65390	330.10000	.00040
GRADIENT		-.00161	-.00045	.00002	.00003	-.00020	.00010	-.02081	.00010	-.00007

RUN NO. 378/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFND	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-1.607	-.00740	.00460	.00000	-.00010	.00080	-.00040	.58540	289.70000	.00050
3.001	-.148	-.00360	.00330	-.00010	.00000	.00030	-.00010	.59410	289.70000	.00040
3.001	1.345	-.00780	.00270	-.00010	.00000	.00010	-.00020	.44720	289.70000	.00020
3.001	3.394	-.00800	.00120	.00000	.00030	-.00040	.00000	.70030	289.70000	.00010
3.001	5.406	-.00580	.00070	.00010	.00030	-.00030	.00000	.65650	289.70000	.00010
3.001	7.431	-.00890	.00030	.00000	.00030	-.00010	-.00010	.65930	289.70000	.00010
3.001	9.456	-.00770	-.00040	-.00010	.00040	-.00050	.00010	.64630	289.70000	.00010
3.001	12.480	-.01140	-.00150	-.00020	.00050	-.00010	-.00010	.64650	289.70000	.00010
3.001	15.550	-.01320	-.00110	-.00030	.00050	.00020	-.00020	.64710	289.70000	.00010
3.001	18.590	-.02040	-.00060	-.00040	.00070	-.00030	.00000	.64980	289.70000	.00020
3.001	21.640	-.02940	-.00040	-.00060	.00050	-.00040	.00010	.65050	289.70000	.00010
3.001	24.690	-.03660	.00070	-.00080	.00050	-.00060	.00020	.65140	289.70000	.00020
3.001	27.230	-.04370	.00050	-.00120	.00080	-.00030	.00010	.65140	289.70000	.00020
GRADIENT		.00012	-.00075	.00001	.00009	-.00026	.00009	.02229	.00011	-.00010

ARC 87-747 0453C B C H F M V NOM. RV/L

(MEL016) (07 MAR 74)

## REFERENCE DATA

SEEF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LPEF = 14.2440 IN. YMRP = .0000 IN.  
BPEF = 28.1004 IN. ZMRP = 11.2900 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
AILSON = .000 BDFLAP = .000  
SPDRK = 55.000 RUDREF = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 375/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMP/D	CY	CYN	CBL	CYV	CYNV	XCF/L	Q	CBLV
3.498	-0.897	-0.0300	.00410	.00030	-0.0020	.00470	-0.00150	.58240	246.50000	.00080
3.498	-0.397	-0.0950	.00240	.00040	-0.0020	.00420	-0.00140	.57720	246.50000	.00070
3.498	1.121	-0.0170	.00250	.00020	-0.0020	.00280	-0.00100	.46510	246.50000	.00050
3.498	3.132	-0.0850	.00230	.00020	-0.0040	.00260	-0.00090	.81430	246.50000	.00050
3.498	5.154	-0.0980	.00120	.00030	-0.0060	.00230	-0.00070	.82440	246.50000	.00040
3.498	7.165	-0.0720	.00120	.00020	-0.0080	.00200	-0.00070	.63440	246.50000	.00040
3.498	9.196	-0.0750	.00300	.00040	-0.0070	.00170	-0.00060	.62760	246.50000	.00040
3.498	12.020	-0.0160	-0.0050	.00010	-0.0070	.00170	-0.00070	.64730	246.50000	.00040
3.498	15.270	-0.0920	-0.0050	.00010	-0.0040	.00130	-0.00050	.64200	246.50000	.00040
3.498	18.300	-0.0180	-0.0010	.00000	-0.0010	.00120	-0.00040	.64530	246.50000	.00040
3.498	21.340	-0.0210	-0.0050	-0.0010	-0.0020	.00020	.00000	.64630	246.50000	.00020
3.498	24.390	-0.0250	-0.0200	-0.0050	-0.0010	.00070	-0.00020	.64720	246.50000	.00020
3.498	26.920	-0.0320	-0.0090	-0.0050	-0.0030	.00090	-0.00010	.64760	246.50000	.00020
	GRADIENT	.00074	-0.00090	-0.0004	-0.0005	-0.0003	.00015	.05633	.00000	-0.0007

ARC 87-147 0A53C B C M F W V HIGH RN/L

(AEL017) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.  
 LREF = 14.2440 IN.  
 BREF = 28.1904 IN.  
 SCALE = .0350 SCALE

WREF = 32.3010 IN.  
 YWREF = .0000 IN.  
 ZWREF = 11.2500 IN.

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AILRON = .000 BDFLAP = .000  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 382/ 0 RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-1.615	.00090	.00390	-.00020	-.00020	.00060	-.00050	.63830	839.00000	.00050
2.499	-1.172	.00000	.00390	-.00020	-.00020	.00080	-.00060	.63250	839.00000	.00050
2.499	1.408	-.00300	.00270	-.00020	-.00010	.00040	-.00040	1.27800	839.00000	.00040
2.499	3.450	-.00590	.00190	-.00030	-.00010	-.00010	-.00030	.66800	839.00000	.00030
2.499	5.553	-.00980	.00190	-.00030	-.00000	.00040	-.00040	.66170	839.00000	.00030
2.499	7.666	-.01190	.00210	-.00040	.00000	.00070	-.00050	.65560	839.00000	.00040
2.499	9.672	-.01350	.00260	-.00050	.00010	.00080	-.00050	.65180	839.00000	.00040
2.499	12.880	-.01670	.00260	-.00050	.00020	.00090	-.00040	.64920	839.00000	.00040
2.499	16.000	-.02400	.00280	-.00050	.00020	.00030	-.00040	.65080	839.00000	.00040
2.499	19.110	-.02870	.00240	-.00050	.00030	.00000	-.00020	.65010	839.00000	.00040
2.499	22.280	-.03580	.00250	-.00080	.00070	.00000	-.00030	.65520	839.00000	.00020
2.499	25.440	-.04420	.00190	-.00090	.00080	.00000	-.00010	.65160	839.00000	.00020
2.499	28.070	-.05170	.00170	-.00100	.00100	-.00010	-.00010	.65230	839.00000	.00020
2.499	GRADIENT	-.00167	-.00053	-.00002	.00005	-.00020	.00006	.03239	.00000	-.00005

RUN NO. 379/ 0 RN/L = 3.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-1.644	-.00850	.00390	-.00010	-.00010	-.00010	-.00010	.57480	599.50000	.00040
3.001	-1.153	.00050	.00360	.00020	-.00010	-.00040	-.00010	.56630	599.50000	.00030
3.001	1.368	-.00920	.00260	.00010	-.00010	.00100	.00010	.20760	599.50000	.00010
3.001	3.445	-.00880	.00180	.00010	-.00010	-.00140	.00030	.70700	599.50000	.00010
3.001	5.425	-.00960	.00110	.00000	-.00010	-.00080	.00010	.66340	599.50000	.00010
3.001	7.475	-.00940	.00130	-.00010	-.00010	-.00060	.00000	.65540	599.50000	.00010
3.001	9.575	-.01070	.00180	-.00010	.00000	-.00050	-.00010	.65070	599.50000	.00020
3.001	12.640	-.01340	.00190	-.00020	.00000	-.00020	-.00010	.64820	599.50000	.00020
3.001	15.750	-.01750	.00200	-.00030	.00010	-.00020	-.00010	.64800	599.50000	.00020
3.001	18.810	-.02300	.00180	-.00050	.00020	-.00070	.00010	.64870	599.50000	.00020
3.001	21.910	-.02710	.00170	-.00050	.00030	-.00090	.00020	.64820	599.50000	.00020
3.001	25.050	-.03410	.00150	-.00070	.00050	-.00030	.00000	.64900	599.50000	.00020
3.001	27.660	-.03960	.00220	-.00120	.00070	-.00030	-.00020	.64940	599.50000	.00020
3.001	GRADIENT	-.00010	-.00052	-.00001	-.00000	-.00031	.00012	.01556	.00000	-.00010



DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 07-747 0453C B C M F M V HIGH RNVL

(AELD17) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 EREF = 20.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AILRON = .000 BOFLAP = .000  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 376/ 0 RNVL = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.498	-2.69	-.01150	.00360	.00030	.00020	.00180	-.00070	.56330	384.10000	.00070
3.498	-3.97	-.01160	.00320	.00050	.00020	.00160	-.00070	.55370	384.10000	.00060
3.498	1.00	-.01110	.00280	.00030	.00020	.00070	-.00040	.43140	384.10000	.00040
3.498	3.121	-.00870	.00150	.00030	.00020	-.00030	-.00010	.76190	384.10000	.00030
3.498	5.153	-.00780	.00030	.00040	.00020	-.00010	-.00010	.67150	384.10000	.00030
3.498	7.022	-.00780	.00080	.00020	.00010	-.00030	.00000	.65320	384.10000	.00020
3.498	9.229	-.01020	.00040	.00030	.00020	-.00020	-.00010	.65320	384.10000	.00030
3.498	12.260	-.00990	.00080	.00010	.00000	-.00050	.00000	.64610	384.10000	.00020
3.498	15.310	-.01300	.00060	.00000	.00020	-.00080	.00010	.64580	384.10000	.00010
3.498	18.410	-.01530	.00010	.00000	.00020	-.00130	.00030	.64460	384.10000	.00020
3.498	21.450	-.02090	.00010	.00000	-.00010	-.00170	.00050	.64590	384.10000	.00000
3.498	24.550	-.02780	.00070	-.00020	-.00010	-.00160	.00050	.64730	384.10000	.00000
3.498	27.090	-.03240	-.00080	-.00020	.00010	-.00200	.00060	.64750	384.10000	.00000
3.498	GRADIENT	.00072	-.00050	-.00002	.00000	-.00033	.00016	.54507	.00010	-.00010

ARC 87-747 QAS3C B C H F M V LOW RN/L

(AEL018) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.  
 LREF = 14.2440 IN.  
 BREF = 28.1994 IN.  
 SCALE = .0300 SC

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AIRLON = .000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -20.000 ELEV-R = -20.000

RUN NO. 386/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-1.556	.03220	-.00090	-.00020	-.00030	.00060	-.00210	.74840	132.90000	.00090
2.499	-.099	.03560	.00110	.00000	-.00040	.00590	-.00200	.75910	132.90000	.00090
2.499	1.411	.03420	.00030	-.00010	-.00030	.00490	-.00160	.87560	132.90000	.00070
2.499	3.419	.02450	.00100	-.00030	-.00040	.00360	-.00180	-4.64000	132.90000	.00070
2.499	5.435	.02430	-.00210	-.00010	-.00030	.00460	-.00140	.49810	132.90000	.00150
2.499	7.447	.02430	-.00350	-.00030	-.00030	.00520	-.00160	.56200	132.90000	.00060
2.499	9.456	.02880	-.00710	-.00040	-.00030	.00480	-.00150	.57450	132.90000	.00060
2.499	12.480	.01770	-.00340	-.00030	-.00010	.00540	-.00170	.61150	132.90000	.00090
2.499	15.500	.01500	-.00400	-.00050	.00000	.00630	-.00210	.61920	132.90000	.00090
2.499	18.520	.01240	-.00560	-.00070	.00010	.00640	-.00200	.62400	132.90000	.00180
2.499	21.540	.00890	-.00560	-.00100	.00030	.00610	-.00190	.62760	132.90000	.00190
2.499	24.570	.00180	-.00500	-.00030	.00160	.00590	-.00180	.63190	132.90000	.00190
2.499	27.090	-.00240	-.00720	-.00100	.00050	.00580	-.00180	.63380	132.90000	.00240
GRADIENT		-.00222	.00021	-.00004	-.00001	-.00013	.00008	-1.32397	.00100	-.00006

RUN NO. 389/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.002	-1.622	.01780	.00360	-.00010	-.00020	-.00390	.00110	.69440	120.80000	-.00010
3.002	-1.135	.01430	.00230	.00000	-.00020	-.00460	.00130	.69200	120.80000	-.00010
3.002	1.366	.01490	.00080	-.00030	-.00020	-.00370	.00110	.71240	120.80000	-.00010
3.002	3.377	.01340	-.00190	-.00020	-.00040	-.00360	.00120	.88040	120.80000	-.00010
3.002	5.382	.01420	.00060	.00000	-.00040	-.00330	.00110	.49590	120.80000	-.00010
3.002	7.392	.01730	-.00090	.00000	-.00030	-.00320	.00110	.56320	120.80000	-.00010
3.002	9.404	.01100	.00270	-.00010	-.00010	-.00300	.00100	.60790	120.80000	-.00010
3.002	15.440	.00920	-.00090	-.00030	-.00030	-.00230	.00070	.60310	120.80000	-.00010
3.002	17.460	-.00610	-.00090	-.00060	-.00020	-.00270	.00090	.63750	120.80000	.00010
3.002	18.460	.00840	-.00620	-.00040	-.00010	-.00210	.00070	.62590	120.80000	.00020
3.002	21.480	.00530	-.00280	-.00030	-.00010	-.00190	.00070	.62930	120.80000	.00020
3.002	24.500	.00790	-.00400	-.00030	-.00010	-.00180	.00070	.62340	120.80000	.00020
3.002	27.030	.00730	-.00630	-.00050	-.00170	-.00220	.00090	.62930	120.80000	.00020
GRADIENT		-.00078	-.00131	-.00004	-.00007	.00016	.00000	.04600	.00100	-.00000

DATE 11 JUL 74

TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C M F W V LOW RN/L

(AEL018) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT.  
LREF = 14.2440 IN.  
BREF = 28.1004 IN.  
SCALE = .0300 SCALE

YMRP = 32.3010 IN.  
YMRP = .0000 IN.  
ZMRP = 11.2500 IN.

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -20.000 ELEV-R = -20.000

RUN NO. 394/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	MCP/L	Q	CBLV
3.498	-1.841	.00370	.00950	.00050	-.00460	-.00650	.00200	.64640	104.80000	-.00020
3.498	-.379	.00860	.00590	.00020	-.00480	-.00680	.00200	.66810	104.80000	-.00020
3.498	1.123	.00350	.00630	.00020	-.00470	-.00660	.00210	.66080	104.80000	-.00030
3.498	3.129	.00800	.00320	.00020	-.00460	-.00720	.00230	.79230	104.80000	-.00040
3.498	5.136	.00970	.00270	.00030	-.00470	-.00630	.00210	.47280	104.80000	-.00030
3.498	7.151	.00640	.00290	.00040	-.00470	-.00670	.00220	.60460	104.80000	-.00030
3.498	9.151	.00790	.00380	.00040	-.00480	-.00650	.00220	.61150	104.80000	-.00030
3.498	12.175	.01350	.00110	.00030	-.00470	-.00600	.00220	.61100	104.80000	-.00030
3.498	15.180	.01590	.00100	.00030	-.00460	-.00610	.00200	.62590	104.80000	-.00030
3.498	18.206	.01250	-.00170	.00000	-.00460	-.00620	.00210	.62130	104.80000	-.00030
3.498	21.210	.00620	-.00110	.00020	-.00450	-.00630	.00220	.62230	104.80000	-.00030
3.498	24.230	.00620	-.00170	.00010	-.00420	-.00630	.00220	.62910	104.80000	-.00040
3.498	26.750	.00470	-.00370	-.00020	-.00400	-.00650	.00220	.63030	104.80000	-.00030
	GRADIENT	.00055	-.00125	-.00005	.00002	-.00014	.00008	.03400	.00000	-.00005



ARC 87-747 0455C B C H F M V NOM. RN/L

(AELD19) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.  
 LREF = 14.2440 IN.  
 BREF = 28.1924 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AILERON = .000 BDFLAP = -11.700  
 SPOBRN = 55.000 RUDDER = .000  
 ELEV-L = -20.000 ELEV-R = -20.000

RUN NO. 387/0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFLD	CY	CYN	CBL	CVV	CYV	CYNV	MCP/L	Q	CBLV
2.499	-0.574	.04230	.00220	-.00030	-.00040	.00280	.00110	.76920	322.00000	.00070	
2.499	-1.156	.04170	.00150	-.00040	-.00040	.00260	.00110	.78430	322.00000	.00060	
2.499	1.407	.03710	.00070	-.00030	-.00040	.00210	.00090	.88180	322.00000	.00050	
2.499	3.440	.03580	.00020	-.00030	-.00030	.00150	.00070	-2.43400	322.00000	.00040	
2.499	5.462	.02950	-.00080	-.00020	-.00010	.00020	.00090	.47760	322.00000	.00050	
2.499	7.490	.02470	.00120	-.00030	-.00010	.00230	.00090	.56320	322.00000	.00050	
2.499	9.528	.02510	.00120	-.00030	-.00010	.00210	.00090	.58790	322.00000	.00050	
2.499	12.560	.02290	.00110	-.00040	-.00010	.00270	.00100	.63580	322.00000	.00070	
2.499	15.630	.01950	.00140	-.00040	-.00010	.00320	.00120	.61570	322.00000	.00070	
2.499	18.690	.01650	.00150	-.00050	-.00020	.00210	.00080	.62140	322.00000	.00060	
2.499	21.740	.01190	.00120	-.00030	-.00010	.00140	.00060	.62800	322.00000	.00050	
2.499	24.800	.00840	.00100	-.00010	-.00010	.00080	.00040	.62870	322.00000	.00040	
2.499	27.340	.00300	.00190	-.00140	.00060	.00170	.00070	.63150	322.00000	.00050	
2.499	GRADIENT	-.00171	-.00056	.00001	.00002	-.00032	.00011	-.78036	.00000	-.00000	

RUN NO. 390/0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFLD	CY	CYN	CBL	CVV	CYV	CYNV	MCP/L	Q	CBLV
3.002	-1.617	.01880	.00260	.00050	-.00120	.00020	.00020	.69900	290.90000	.00140	
3.002	-1.156	.02320	.00040	.00000	-.00130	-.00020	-.00010	.71930	290.90000	.00130	
3.002	1.364	.02160	.00020	.00010	-.00130	-.00090	.00010	.75560	290.90000	.00120	
3.002	3.384	.01980	.00040	.00010	-.00120	-.00120	.00030	1.65400	290.90000	.00110	
3.002	5.400	.01840	.00060	.00010	-.00120	-.00080	.00020	.48420	290.90000	.00100	
3.002	7.425	.01650	.00020	.00000	-.00110	-.00060	.00010	.57330	290.90000	.00090	
3.002	9.451	.01790	.00130	.00000	-.00110	-.00090	.00020	.59280	290.90000	.00080	
3.002	12.490	.01000	.00330	-.00010	-.00120	-.00060	.00010	.67710	290.90000	.00070	
3.002	15.540	.01560	.00250	-.00010	-.00100	-.00020	.00000	.61720	290.90000	.00060	
3.002	17.570	.01570	.00220	-.00020	-.00090	-.00030	.00000	.61950	290.90000	.00050	
3.002	18.590	.01390	.00420	-.00040	-.00100	-.00040	.00000	.62180	290.90000	.00040	
3.002	21.630	.01170	.00270	-.00050	-.00120	-.00020	.00000	.62330	290.90000	.00030	
3.002	24.690	.01180	.00230	-.00070	-.00140	-.00010	.00040	.62650	290.90000	.00020	
3.002	27.230	.01010	.00230	-.00010	-.00060	-.00080	.00020	.62810	290.90000	.00010	
3.002	GRADIENT	-.00017	-.00058	.00003	.00001	-.00030	.00012	.23347	.00000	-.00000	

(AEL019) ( 07 MAR 74 )

ARC 87-747 0453C B C M F W V NOM. RN/L

PARAMETRIC DATA  
BETA = .000 ELEVON = -20.000  
AIR/ON = .000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -20.000 ELEV-R = -20.000

REFERENCE DATA  
SREF = 2.4210 SQ-FT. ZMRP = 32.3010 IN.  
LREF = 14.2440 IN. ZMRP = .0000 IN.  
BREF = 28.1054 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

RUN NO. 393/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00									
WACH	ALPHA	CLMFJG	CY	CYN	CBL	CYV	CYNV	WCP/L	CBLV
3.498	-1.861	.00690	.00530	.00020	-.00200	-.00190	.00020	.65900	.00010
3.498	-1.399	.00970	.00560	.00030	-.00190	-.00210	.00040	.67400	.00010
3.498	1.111	.00980	.00440	.00010	-.00190	-.00280	.00000	.67400	.00010
3.498	3.132	.00760	.00290	.00030	-.00190	-.00300	.00080	.67400	.00010
3.498	5.147	.00430	.00240	.00030	-.00200	-.00310	.00080	.67400	.00010
3.498	7.172	.01050	.00460	.00000	-.00200	-.00300	.00080	.67400	.00010
3.498	9.191	.00960	.00110	.00020	-.00200	-.00320	.00090	.67400	.00010
3.498	12.230	.01360	.00130	.00010	-.00200	-.00320	.00090	.67400	.00010
3.498	15.260	.01170	.00040	.00010	-.00200	-.00320	.00090	.67400	.00010
3.498	18.300	.01390	.00030	-.00010	-.00200	-.00300	.00090	.67400	.00010
3.498	21.340	.01360	.00140	-.00010	-.00190	-.00340	.00090	.67400	.00010
3.498	24.390	.01600	.00010	-.00030	-.00190	-.00330	.00090	.67400	.00010
3.498	26.930	.01410	.00050	-.00040	-.00180	-.00300	.00090	.67400	.00010
3.498	GRADIENT	-.00005	-.00066	.00001	.00002	-.00028	.00012	.68222	.00000

ARC 87-747 OASSC B C N F M V HIGH RN/L

(AELO20) ( 07 MAR 74 )

## REFERENCE DATA

SECF = 2.4210 54-FT.  
 LRF = 14.2440 IN.  
 BREF = 28.1004 IN.  
 SCALE = .0300 SCALE

SWP = 32.3010 IN.  
 YMRP = .0000 IN.  
 ZMRP = 11.2500 IN.

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AILRON = .000 BDFLAP = -11.700  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = -20.000 ELEV-R = -20.000

RUN NO. 368/ 0 RN/L = 3.96 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFLD	CY	CYN	CBL	CYV	CYNV	MCP/L	Q	COLV
2.499	-626	.04190	.00350	-.00030	-.00040	.00080	-.00060	.76510	843.30000	.00050
2.499	-155	.03690	.00320	-.00030	-.00040	.00090	-.00060	.77480	843.30000	.00050
2.499	1.403	.03600	.00240	-.00030	-.00040	.00030	-.00040	.68330	843.30000	.00040
2.499	3.466	.03170	.00180	-.00040	-.00030	.00010	-.00030	-1.03200	843.30000	.00030
2.499	5.544	.02750	.00170	-.00040	-.00020	.00060	-.00040	.49060	843.30000	.00030
2.499	7.620	.02560	.00120	-.00040	-.00020	.00080	-.00040	.56440	843.30000	.00030
2.499	9.706	.02470	.00150	-.00050	-.00010	.00080	-.00050	.58890	843.30000	.00040
2.499	12.850	.02260	.00150	-.00060	-.00040	.00050	-.00040	.62670	843.30000	.00040
2.499	15.980	.01920	.00180	-.00080	-.00040	.00030	-.00040	.61640	843.30000	.00040
2.499	19.120	.01730	.00070	-.00060	-.00070	.00000	-.00020	.62110	843.30000	.00030
2.499	22.270	.01340	.00140	-.00070	-.00020	.00000	-.00020	.62530	843.30000	.00020
2.499	25.420	.00990	.00190	-.00080	-.00020	.00030	-.00030	.62810	843.30000	.00010
2.499	28.060	.00750	.00130	-.00080	-.00020	.00060	-.00010	.62960	843.30000	.00010
2.499	GRADIENT	-.00231	-.00041	-.00002	-.00002	-.00020	-.00008	-.42634	.00001	-.00005

RUN NO. 391/ 0 RN/L = 3.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFLD	CY	CYN	CBL	CYV	CYNV	MCP/L	Q	COLV
3.002	-654	.02000	.00310	.00010	-.00070	.00030	-.00030	.70410	604.70000	.00040
3.002	-186	.02020	.00270	.00010	-.00070	.00010	-.00020	.71380	604.70000	.00030
3.002	1.347	.01940	.00150	.00010	-.00070	.00060	-.00010	.77100	604.70000	.00020
3.002	3.393	.01930	.00110	.00000	-.00070	.00080	-.00000	-118.60000	604.70000	.00010
3.002	5.137	.01750	.00080	.00000	-.00070	.00030	-.00010	.51650	604.70000	.00020
3.002	7.490	.01800	.00000	.00000	-.00060	.00000	-.00020	.57490	604.70000	.00020
3.002	9.546	.01660	.00010	.00000	-.00050	.00020	-.00020	.59370	604.70000	.00020
3.002	12.640	.01700	-.00020	-.00020	-.00050	.00010	-.00020	.60990	604.70000	.00020
3.002	15.730	.01690	.00060	-.00030	-.00050	.00000	-.00020	.61630	604.70000	.00030
3.002	18.620	.01570	.00060	-.00040	-.00050	.00000	.00000	.62820	604.70000	.00020
3.002	21.910	.01430	-.00010	-.00040	-.00030	.00000	.00000	.62380	604.70000	.00010
3.002	25.030	.01320	.00020	-.00070	-.00070	.00070	.00010	.62590	604.70000	.00010
3.002	27.620	.01190	.00040	-.00100	-.00010	.00010	-.00010	.62730	604.70000	.00030
3.002	GRADIENT	-.00022	-.00050	-.00002	.00000	-.00025	.00007	-28.87697	-.00000	-.00007

ARC 87-747 0453C B C M F W V HIGH RN/L

REFERENCE DATA  
SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0300 SCALE

PARAMETRIC DATA  
BETA = .000 ELEVON = -20.000  
AILRON = .000 RCFAP = -11.700  
JFCBRK = 55.000 RUDDER = .000  
ELEV-L = -20.000 ELEV-R = -20.000

RUN NO. 392/ 0 RN/L = 2.48 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.498	-8.79	.00900	.00540	.00020	-.00140	.00030	-.00030	.66610	396.10000	.00040
3.498	-4.11	.01070	.00540	.00020	-.00130	.00000	-.00020	.67780	396.10000	.00030
3.498	1.105	.01030	.00390	.00020	-.00140	-.00070	.00000	.70300	396.10000	.00020
3.498	3.133	.01020	.00280	.00030	-.00140	-.00130	.00020	1.33200	396.10000	.00010
3.498	5.163	.00960	.00080	.00020	-.00130	-.00130	.00030	.55700	396.10000	.00010
3.498	7.190	.00930	.00050	.00020	-.00130	-.00110	.00020	.59780	396.10000	.00010
3.498	9.227	.01080	.00100	.00010	-.00130	-.00140	.00030	.60690	396.10000	.00010
3.498	12.280	.01220	.00090	.00010	-.00130	-.00120	.00020	.61390	396.10000	.00010
3.498	15.340	.01380	.00090	.00000	-.00130	-.00130	.00050	.61750	396.10000	.00010
3.498	18.390	.01290	.00090	.00000	-.00130	-.00190	.00050	.62180	396.10000	.00000
3.498	21.460	.01340	.00100	-.00010	-.00140	-.00230	.00060	.62360	396.10000	-.00010
3.498	24.530	.01360	.00080	-.00030	-.00140	-.00220	.00070	.62510	396.10000	-.00010
3.498	27.080	.01470	.00080	-.00030	-.00140	-.00220	.00060	.62550	396.10000	-.00010
	GRADIENT	.00014	-.00069	.00002	-.00001	-.00039	.00012	.16273	.00000	-.00007

DATE 15 JUL 74

TABULATED SOURCE DATA - Q433C

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ARC 87-747 Q433C L C H F W V NOM. RN/L

(AEL021) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. YMRP = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
AILRON = 10.000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = -20.000

RUN NO. 383/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-0.567	.02570	.00300	.00250	.00750	.00410	-.00160	.74370	323.80000	.00080
2.499	-1.06	.02390	.00220	.00240	.03740	.00420	-.00160	.74400	323.80000	.00070
2.499	1.413	.02250	.00140	.00200	.00730	.00330	-.00130	.90680	323.80000	.00070
2.499	3.438	.01670	.00010	.00150	.00700	.00300	-.00110	.42110	323.80000	.00050
2.499	5.465	.01360	.00060	.00110	.00690	.00320	-.00120	.57710	323.80000	.00050
2.499	7.493	.01080	-.00080	.00070	.00730	.00340	-.00130	.60760	323.80000	.00060
2.499	9.527	.00740	-.00040	.00040	.00730	.00350	-.00130	.62070	323.80000	.00070
2.499	12.580	.00430	-.00070	.00010	.00730	.00380	-.00140	.62340	323.80000	.00070
2.499	15.630	.00270	-.00070	-.00050	.00770	.00430	-.00150	.63050	323.80000	.00080
2.499	18.680	-.00040	-.00030	-.00080	.00820	.00340	-.00130	.63300	323.80000	.00070
2.499	21.740	-.00730	.00050	-.00120	.00870	.00250	-.00090	.63670	323.80000	.00050
2.499	24.800	-.01280	.00080	-.00170	.00960	.00230	-.00090	.63850	323.80000	.00050
2.499	27.340	-.01890	.00170	-.00240	.01030	.00370	-.00110	.64030	323.80000	.00060
GRADIENT		-.00211	-.00068	-.00025	-.00012	-.00031	.00013	-.07280	.00000	-.00007

RUN NO. 384/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-1.612	.00910	.00240	.00200	.00580	.00320	-.00120	.67760	288.00000	.00070
3.001	-1.149	.00980	.00060	.00200	.00570	.00280	-.00110	.58650	288.00000	.00070
3.001	1.366	.00630	.00130	.00170	.00550	.00260	-.00100	.71760	288.00000	.00050
3.001	3.387	.00680	.00050	.00140	.00530	.00220	-.00080	.51810	288.00000	.00040
3.001	5.406	.00830	.00000	.00110	.00520	.00270	-.00090	.53080	288.00000	.00040
3.001	7.433	.00820	-.00160	.00080	.00560	.00280	-.00100	.60940	288.00000	.00050
3.001	9.458	.00770	-.00120	.00050	.00560	.00270	-.00100	.61810	288.00000	.00050
3.001	12.500	.00400	-.00220	.00020	.00580	.00310	-.00110	.62760	288.00000	.00060
3.001	15.540	.00440	-.00200	-.00010	.00650	.00330	-.00120	.62840	288.00000	.00060
3.001	18.590	.00260	.00420	-.00130	.00710	.00230	-.00080	.63080	288.00000	.00050
3.001	21.630	-.00120	-.00130	-.00100	.00770	.00200	-.00070	.63340	288.00000	.00050
3.001	24.680	-.00500	-.00010	-.00130	.00860	.00240	-.00080	.63530	288.00000	.00050
3.001	27.220	-.00930	-.00040	-.00190	.00940	.00270	-.00090	.63690	288.00000	.00050
GRADIENT		-.00073	-.00030	-.00016	-.00012	-.00022	.00009	-.03864	.00000	-.00008

REFERENCE DATA  
 SRP = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BRP = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0100 SCALE

PARAMETRIC DATA  
 BETA = .000 ELEVON = -10.000  
 AILFON = 10.000 BOFLAP = -11.700  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = -20.000

RUN NO. 385/0 RNVL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	MCP/L	Q	CBLV
3.498	-0.698	-0.00030	.00120	.00200	.00550	.00420	-.00150	.63150	252.20000	.00080
3.498	-0.398	.00130	.00090	.00210	.00550	.00390	-.00130	.63970	252.20000	.00070
3.498	1.113	.00010	.00060	.00170	.00520	.00290	-.00110	.63350	252.20000	.00060
3.498	3.137	.00380	-.00140	.00150	.00490	.00210	-.00080	.43430	252.20000	.00050
3.498	5.151	.00350	-.00140	.00120	.00470	.00230	-.00080	.60820	252.20000	.00050
3.498	7.171	.00310	-.00200	.00110	.00460	.00240	-.00080	.62190	252.20000	.00050
3.498	9.189	.00580	-.00200	.00070	.00470	.00210	-.00080	.61930	252.20000	.00050
3.498	12.230	.00290	-.00230	.00050	.00500	.00230	-.00090	.62850	252.20000	.00050
3.498	15.260	.00190	-.00220	.00030	.00540	.00230	-.00090	.63070	252.20000	.00060
3.498	18.300	.00130	-.00120	-.00040	.00600	.00170	-.00060	.63250	252.20000	.00040
3.498	21.340	.00180	-.00310	-.00040	.00660	.00140	-.00040	.63150	252.20000	.00030
3.498	24.380	-.00180	-.00180	-.00070	.00740	.00180	-.00050	.63320	252.20000	.00040
3.498	26.910	-.00220	-.00810	-.00160	.00800	.00200	-.00070	.63280	252.20000	.00040
	GRADIENT	.00083	-.00562	-.00015	-.00016	-.00048	.00016	-.04927	.00050	-.00007

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C H F W V NOM. RNVL

(AELG22) ( 07 MAR 74 )

## REFERENCE DATA

SAEF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. YMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AIRON = 20.000 BOFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = -40.000

RUN NO. 513/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLFWO	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBV
2.498	-.521	.03750	-.00570	.00900	.01290	.00070	-.00040	.75440	325.50000	.00050
2.498	.116	.03290	-.00620	.00870	.01260	.00070	-.00040	.75960	325.50000	.00050
2.498	1.133	.03180	-.00700	.00830	.01220	.00090	-.00020	.81370	325.50000	.00040
2.498	3.115	.02750	-.00680	.00720	.01160	-.00080	.00010	-16.52000	325.50000	.00020
2.498	5.184	.02070	-.00510	.00600	.01110	-.00020	.00000	.51040	325.50000	.00020
2.498	7.218	.01980	-.00500	.00580	.01110	-.00030	.00000	.57480	325.50000	.00020
2.498	9.247	.01780	-.00520	.00550	.01100	-.00040	.00000	.59310	325.50000	.00020
2.498	12.300	.01190	-.00420	.00440	.01120	.00000	-.00010	.51620	325.50000	.00040
2.498	15.350	.00990	-.00130	.00290	.01060	.00000	-.00020	.62420	325.50000	.00040
2.498	18.410	.00550	.00050	.00170	.01090	-.00010	.00010	.62890	325.50000	.00030
2.498	21.460	.00340	.00270	.00080	.01130	-.00120	.00030	.63060	325.50000	.00020
2.498	24.520	-.00190	.00280	.00010	.01200	-.00120	.00030	.63360	325.50000	.00020
2.498	27.400	-.00590	.00440	-.00100	.01310	-.00090	.00010	.63520	325.50000	.00010
2.498	GRADIENT	-.00245	-.00028	-.00048	-.00034	-.00043	.00014	-4.72551	.00011	-.00008

RUN NO. 512/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLFWO	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBV
3.001	-.635	.01690	-.00260	.00690	.01010	.00000	-.00010	.65930	290.20000	.00050
3.001	.075	.01700	-.00240	.00670	.00990	-.00010	-.00010	.70710	290.20000	.00040
3.001	1.086	.01600	-.00280	.00640	.00960	.00020	-.00020	.74280	290.20000	.00040
3.001	3.113	.01500	-.00310	.00570	.00910	-.00010	.00030	1.30750	290.20000	.00010
3.001	5.127	.01500	-.00170	.00470	.00890	-.00030	.00030	.49480	290.20000	.00010
3.001	7.153	.01260	-.00220	.00440	.00870	-.00080	.00020	.58790	290.20000	.00010
3.001	9.175	.01160	-.00220	.00420	.00850	-.00090	.00020	.62630	290.20000	.00010
3.001	12.220	.01240	-.00280	.00390	.00870	-.00100	.00030	.61510	290.20000	.00010
3.001	15.270	.00820	-.00030	.00270	.00880	-.00040	.00010	.62340	290.20000	.00010
3.001	18.310	.00760	.00130	.00150	.00920	-.00020	.00020	.62660	290.20000	.00020
3.001	21.390	.00610	.00170	.00080	.00990	-.00040	.00020	.62880	290.20000	.00020
3.001	24.400	.00220	.00250	.00040	.01060	-.00140	.00040	.63150	290.20000	.00010
3.001	27.280	.00170	.00490	-.00080	.01150	-.00120	.00040	.63210	290.20000	.00020
3.001	GRADIENT	-.00045	-.00016	-.00032	-.00024	-.00032	.00011	.16819	.00000	-.00010

REFERENCE DATA

SREF = 2.4210 SQ.FT.

LREF = 14.2440 IN.

BREF = 28.1504 IN.

SCALE = .0355 SCALE

PARAMETRIC DATA

BETA = .000

AILRON = 20.000

SPDRK = 55.000

ELEV-L = .000

ELEVON = -20.000

BDCLAP = -11.700

RUDDER = .000

ELEV-R = -40.000

RUN NO. 511/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00											
MACH	ALPHA	C.M.F/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV	
3.496	-8.79	.00850	.00010	.00620	.00900	.00260	-.00090	.66380	249.10000	.00070	
3.496	-1.70	.00750	-.00030	.00630	.00870	.00250	-.00090	.66480	249.10000	.00060	
3.496	.838	.00620	-.00130	.00590	.00830	.00110	-.00055	.66500	249.10000	.00040	
3.496	2.862	.01060	-.00160	.00520	.00770	.00010	-.00010	.83680	249.10000	.00030	
3.496	4.875	.01120	-.00080	.00440	.00740	.00030	-.00010	.49750	249.10000	.00030	
3.496	6.892	.00910	-.00130	.00420	.00720	.00030	-.00010	.59100	249.10000	.00030	
3.496	8.919	.00830	-.00120	.00390	.00710	-.00020	.00000	.61060	249.10000	.00020	
3.496	11.950	.01120	-.00110	.00340	.00720	-.00040	.00010	.61460	249.10000	.00030	
3.496	14.520	.01080	.00010	.00270	.00740	-.00030	.00000	.61990	249.10000	.00030	
3.496	14.990	.01060	.00090	.00260	.00740	-.00030	.00000	.62050	249.10000	.00030	
3.496	18.020	.00970	.00100	.00190	.00770	-.00120	.00040	.62430	249.10000	.00020	
3.496	21.560	.00830	.00150	.00140	.00820	-.00110	.00045	.62690	249.10000	.00010	
3.496	24.100	.00850	.00210	.00060	.00900	-.00080	.00030	.62780	249.10000	.00010	
3.496	27.010	.00730	.00330	-.00030	.00970	-.00090	.00030	.62910	249.10000	.00010	
3.496	GRADIENT	.00074	-.00015	-.00033	-.00028	-.00045	.00016	-.01483	.00000	-.00007	



ARC 87-747 0453C B C M F W V ROM. RNVL

(AEL023) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT.  
LREF = 14.2440 IN.  
BREF = 28.0004 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -40.000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -40.000 ELEV-R = -40.000

RUN NO. 523/ 0 RNVL = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCF/L	Q	CBLV
2.499	-.522	.06380	.00200	-.00030	-.00030	.00290	-.00110	.78380	320.00000	.00060
2.499	.181	.06240	.00100	-.00030	-.00030	.00260	-.00100	.79710	320.00000	.00060
2.499	1.192	.05700	.00100	-.00030	-.00040	.00270	-.00100	.82330	320.00000	.00050
2.499	3.212	.05120	-.00040	-.00030	-.00030	.00200	-.00080	1.08900	320.00000	.00040
2.499	5.244	.04390	.00010	-.00050	-.00030	.00230	-.00080	-.07530	320.00000	.00030
2.499	7.279	.04180	-.00040	-.00050	-.00040	.00240	-.00080	.45380	320.00000	.00040
2.499	9.307	.03990	-.00070	-.00040	-.00030	.00190	-.00070	.54170	320.00000	.00040
2.499	12.350	.03900	-.00190	-.00040	-.00030	.00260	-.00090	.57740	320.00000	.00060
2.499	15.410	.03490	-.00090	-.00050	-.00030	.00230	-.00110	.59890	320.00000	.00060
2.499	18.460	.02970	-.00130	-.00050	-.00030	.00200	-.00080	.61070	320.00000	.00050
2.499	21.520	.02890	-.00140	-.00050	-.00020	.00100	-.00040	.61530	320.00000	.00030
2.499	24.570	.02520	-.00110	-.00080	-.00010	.00110	-.00040	.62000	320.00000	.00030
2.499	27.450	.02280	-.00080	-.00040	-.00030	.00200	-.00070	.62280	320.00000	.00050
2.499	GRADIENT	-.00350	-.00058	.00000	-.00000	-.00022	.00007	.08415	-.00000	-.00006

RUN NO. 524/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCF/L	Q	CBLV
3.001	-.560	.03750	.00170	.00010	-.00010	.00220	-.00090	.73460	287.60000	.00050
3.001	.142	.03600	.00150	.00010	-.00010	.00210	-.00080	.74460	287.60000	.00050
3.001	1.147	.03680	.00020	.00010	-.00020	.00140	-.00060	.77700	287.60000	.00040
3.001	3.161	.03200	-.00080	.00020	-.00020	.00090	-.00040	.93210	287.60000	.00020
3.001	5.200	.03070	-.00040	.00010	-.00020	.00100	-.00040	-.03450	287.60000	.00020
3.001	7.219	.03320	.00050	-.00030	-.00040	.00090	-.00030	.47940	287.60000	.00020
3.001	9.236	.03210	-.00040	-.00010	-.00030	.00060	-.00030	.54530	287.60000	.00020
3.001	12.290	.03260	-.00080	.00000	-.00030	.00130	-.00050	.58060	287.60000	.00040
3.001	15.320	.02880	-.00120	-.00020	-.00020	.00180	-.00070	.60050	287.60000	.00040
3.001	18.360	.02760	-.00140	-.00030	-.00030	.00120	-.00060	.60920	287.60000	.00040
3.001	21.410	.02840	-.00180	-.00060	-.00020	.00060	-.00030	.61350	287.60000	.00030
3.001	24.470	.02860	-.00190	-.00060	-.00000	.00020	-.00010	.61660	287.60000	.00020
3.001	27.340	.02710	-.00170	-.00090	.00020	.00060	-.00020	.61970	287.60000	.00030
3.001	GRADIENT	-.00129	-.00071	.00003	-.00003	-.00037	.00014	.05489	.00000	-.00009

TABULATED SOURCE DATA - 0453C

DATE 15 JUL 74

(AELD23) ( 07 MAR 74 )

ARC 87-747 0453C B C M F W V NOM. RN/L

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEWON = -40.000  
 AILPON = .000 BDFLAP = -11.700  
 SPDORK = 55.000 RUDDER = .000  
 ELEV-L = -40.000 ELEV-R = -40.000

RUN NO. 525/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-0.800	.02610	.00250	.00090	-.00020	.00180	-.00080	.71100	250.90000	.00060
3.496	-1.111	.02420	.00240	.00030	-.00020	.00180	-.00070	.70950	250.90000	.00050
3.496	.896	.02310	.00230	.00020	-.00020	.00130	-.00060	.72950	250.90000	.00040
3.496	2.919	.02550	.00090	.00030	-.00020	.00070	-.00030	.84160	250.90000	.00030
3.496	4.949	.02350	.00000	.00040	-.00020	.00030	-.00010	-.68420	250.90000	.00020
3.496	6.961	.02320	-.00040	.00030	-.00030	.00000	.00000	.49940	250.90000	.00020
3.496	8.979	.02410	.00060	.00030	-.00030	-.00020	.00000	.55900	250.90000	.00020
3.496	12.010	.02540	.00040	.00020	-.00020	-.00020	.00000	.38630	250.90000	.00020
3.496	15.040	.02340	.00020	.00010	-.00040	.00040	-.00020	.60380	250.90000	.00030
3.496	18.090	.02570	-.00080	.00020	-.00040	-.00070	.00020	.60870	250.90000	.00020
3.496	21.120	.02860	-.00070	.00020	-.00050	-.00110	.00040	.61150	250.90000	.00010
3.496	24.170	.02700	-.00090	-.00010	-.00040	-.00100	.00030	.61630	250.90000	.00010
3.496	27.070	.03110	-.00130	-.00030	-.00030	-.00120	.00030	.61670	250.90000	.00010
3.496		-.00020	-.00047	-.00005	-.00000	-.00028	.00012	-.20544	.00000	-.00007

GRADIENT

ARC 87-747 0455C B C M F LA V NOM. RNL

(AEL024) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4215 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2445 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AIRON = .000 BOFLAP = -11.700  
 SPDRK = 25.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 467/ 0 RNL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.498	-1.115	-0.01420	.00090	.00000	-.00020	.00310	-.00120	.52050	315.70000	.00070
2.498	1.404	-0.01620	-.00040	-.00010	-.00020	.00280	-.00100	-1.13600	315.70000	.00060
2.498	3.436	-0.01820	-.00100	.00000	-.00020	.00200	-.00070	.75460	315.70000	.00040
2.498	5.454	-0.02150	-.00210	-.00020	-.00020	.00230	-.00080	.69970	315.70000	.00040
2.498	7.493	-0.02270	-.00210	.00000	-.00010	.00220	-.00080	.67890	315.70000	.00040
2.498	9.515	-0.02530	-.00190	-.00010	-.00010	.00260	-.00090	.66980	315.70000	.00050
2.498	12.570	-0.02530	-.00220	-.00020	.00000	.00300	-.00100	.65920	315.70000	.00060
2.498	15.610	-0.02940	-.00090	.00010	.00020	.00320	-.00110	.65580	315.70000	.00060
2.498	18.666	-0.03380	-.00170	-.00030	.00020	.00280	-.00080	.65430	315.70000	.00050
2.498	21.730	-0.04030	-.00200	-.00050	.00030	.00170	-.00060	.65380	315.70000	.00040
2.498	24.790	-0.04440	-.00220	-.00100	.00060	.00180	-.00060	.65250	315.70000	.00050
2.498	27.330	-0.04390	-.00190	-.00120	.00090	.00250	-.00080	.65240	315.70000	.00050
2.498	GRADIENT	-.00112	-.00052	.00050	.00000	-.00031	.00014	.11327	-1.00000	-.00009

RUN NO. 471/ 0 RNL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-1.614	-0.02060	.00210	.00020	.00000	.00120	-.00050	.48550	285.60000	.00050
3.001	-1.156	-0.02070	.00130	.00030	-.00010	.00120	-.00050	.48900	285.60000	.00050
3.001	1.358	-0.01960	.00020	.00020	-.00010	.00040	-.00020	.12710	285.60000	.00030
3.001	3.381	-0.01830	-.00120	.00020	-.00010	.00030	-.00020	.84840	285.60000	.00020
3.001	5.402	-0.01740	-.00190	.00010	-.00010	.00060	-.00020	.70650	285.60000	.00020
3.001	7.420	-0.01880	-.00180	.00060	-.00010	.00080	-.00030	.68240	285.60000	.00030
3.001	9.456	-0.01730	-.00230	.00010	.00000	.00090	-.00020	.66370	285.60000	.00030
3.001	12.500	-0.02130	-.00240	.00000	.00070	.00070	-.00030	.65870	285.60000	.00040
3.001	15.540	-0.02500	-.00220	.00000	.00010	.00100	-.00040	.65540	285.60000	.00040
3.001	18.590	-0.02450	-.00230	-.00020	.00020	.00090	-.00010	.65040	285.60000	.00040
3.001	21.620	-0.02930	-.00180	-.00040	.00030	.00030	-.00010	.65030	285.60000	.00030
3.001	24.680	-0.03200	-.00240	-.00060	.00050	.00030	-.00010	.64860	285.60000	.00030
3.001	27.220	-0.03630	-.00210	-.00100	.00080	.00080	-.00030	.64860	285.60000	.00040
3.001	GRADIENT	.00061	-.00079	-.00001	-.00002	-.00025	.00008	.07515	-1.00000	-.00009

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C M F W V NOM. RN/L

(AEL024) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.  
LREF = 14.2440 IN.  
BREF = 28.1054 IN.  
SCALE = .0300 SCALE

XMRP = 32.3010 IN.  
YMRP = .0000 IN.  
ZMRP = 11.2500 IN.

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 25.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 475/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-0.853	-0.01790	.00160	.00050	-0.00020	.00460	-0.00150	.51580	241.40000	.00070
3.496	-0.395	-0.02270	.00120	.00050	-0.00020	.00390	-0.00130	.47600	241.40000	.00060
3.496	1.114	-0.01970	-0.00010	.00040	-0.00020	.00310	-0.00110	.32070	241.40000	.00050
3.496	3.126	-0.01800	-0.00150	.00040	-0.00030	.00280	-0.00090	.97620	241.40000	.00040
3.496	5.147	-0.01390	-0.00200	.00040	-0.00030	.00300	-0.00090	.70480	241.40000	.00040
3.496	7.169	-0.01480	-0.00250	.00040	-0.00030	.00280	-0.00090	.67700	241.40000	.00040
3.496	9.192	-0.01150	-0.00270	.00040	-0.00030	.00240	-0.00080	.65710	241.40000	.00040
3.496	12.220	-0.01650	-0.00200	.00030	-0.00040	.00210	-0.00070	.63580	241.40000	.00040
3.496	15.260	-0.01520	-0.00260	.00020	-0.00030	.00210	-0.00070	.64820	241.40000	.00050
3.496	19.290	-0.01540	-0.00450	.00020	-0.00030	.00230	-0.00070	.64510	241.40000	.00040
3.496	21.330	-0.01670	-0.00400	-0.00010	-0.00020	.00160	-0.00050	.64360	241.40000	.00030
3.496	24.380	-0.02140	-0.00320	-0.00030	-0.00000	.00200	-0.00060	.64430	241.40000	.00030
3.496	26.910	-0.02270	-0.00440	-0.00050	-0.00000	.00170	-0.00050	.64330	241.40000	.00030
	GRADIENT	.00048	-0.00078	-0.00003	-0.00002	-0.00042	.00014	.11066	.00000	-0.00007

ARC 87-747 OAS3C B C H F M V NOM. RN/L

(AEL025) (07 MAR 74)

## REFERENCE DATA

SECF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1054 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 25.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 468/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XC/P/L	Q	CBLV
2.498	-4.647	-.01575	.09220	-.00110	.00290	.03350	-.01600	.48400	319.10000	.01080
2.498	-2.673	-.01480	.05640	-.00020	.00150	.02240	-.00890	.50650	319.10000	.05690
2.498	-.692	-.01350	.01890	.00000	.00040	.01040	-.00440	.51880	319.10000	.00280
2.498	.302	-.01280	.00060	.00000	-.00010	.00330	-.00120	.51280	319.10000	.00270
2.498	1.335	-.01340	-.01530	.00090	-.00070	-.00420	.00210	.51750	319.10000	-.00140
2.498	3.382	-.01500	-.05150	.00060	-.00190	-.01750	.00300	.50950	319.10000	-.00370
2.498	5.431	-.01640	-.08760	.00160	-.00320	-.03090	.01420	.47250	319.10000	-.00970
2.498	7.143	-.01710	-.11970	.00280	-.00420	-.04340	.01960	.47560	319.10000	-.01350
	GRADIENT	.00017	-.01794	.00018	-.00059	-.00660	.00299	.00311	.00000	-.00206

RUN NO. 472/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XC/P/L	Q	CBLV
3.001	-4.630	-.02340	.09370	-.00140	.00280	.03180	-.01460	.42450	287.80000	.00970
3.001	-2.613	-.02220	.05650	-.00020	.00160	.01880	-.00870	.46130	287.80000	.00590
3.001	-.604	-.01940	.01960	.00010	.00040	.00810	-.00350	.47780	287.80000	.00240
3.001	.402	-.02220	.00180	.00020	-.00010	.00170	-.00060	.45320	287.80000	.00050
3.001	1.437	-.01900	-.01590	.00040	-.00060	-.00480	.00230	.48590	287.80000	-.00130
3.001	3.521	-.02080	-.05150	.00060	-.00170	-.01720	.00780	.49030	287.80000	-.00510
3.001	5.603	-.02120	-.08750	.00160	-.00280	-.03050	.01370	.46380	287.80000	-.00880
3.001	7.392	-.02260	-.11770	.00250	-.00360	-.04020	.01820	.46970	287.80000	-.01160
	GRADIENT	.00038	-.01785	.00023	-.00055	-.00597	.00274	.00728	-.00000	-.00181

RUN NO. 476/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XC/P/L	Q	CBLV
3.496	-4.833	-.02240	.08760	-.00050	.00190	.02710	-.01230	.46030	249.50000	.00780
3.496	-2.755	-.02170	.05220	-.00010	.00100	.01780	-.00790	.46690	249.50000	.00490
3.496	-.686	-.01740	.01780	.00040	.00020	.00840	-.00340	.51210	249.50000	.00210
3.496	.354	-.01790	.00150	.00060	-.00010	.00330	-.00120	.51250	249.50000	.00060
3.496	1.427	-.02310	-.01430	.00080	-.00060	-.00250	.00140	.47870	249.50000	-.00180
3.496	3.569	-.01830	-.04760	.00080	-.00130	-.01300	.00600	.50330	249.50000	-.00390
3.496	5.723	-.02140	-.08240	.00110	-.00210	-.02420	.01100	.48230	249.50000	-.00690
3.496	7.494	-.02060	-.11180	.00090	-.00280	-.03170	.01460	.48550	249.50000	-.00930
	GRADIENT	.00037	-.01608	.00017	-.00038	-.00478	.00218	.00509	.00000	-.00139

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C H F M V NOM. RN/L

(AEL026) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4215 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2445 IN. YMRP = .0000 IN.  
 BREF = 20.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000  
 ATTORN = .000 BDELAP = -11.700  
 SPCBRK = 25.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 469/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.498	-4.740	-.02950	.07770	.00240	.00540	.02530	-.01180	.67060	321.00000	.00820
2.498	-2.723	-.02310	.04530	.00200	.00290	.01640	-.00740	.66540	321.00000	.00520
2.498	-.711	-.02340	.01770	.00020	.00090	.00650	-.00290	.66370	321.00000	.00250
2.498	.295	-.02330	-.00170	-.00030	.00000	.00180	-.00070	.66400	321.00000	.00050
2.498	1.313	-.02490	-.01620	-.00120	-.00090	.00270	.00150	.66610	321.00000	-.00100
2.498	3.327	-.02690	-.04740	-.00180	-.00300	-.01310	.00630	.66820	321.00000	-.00440
2.498	5.348	-.02670	-.07950	-.00180	-.00360	-.02350	.01110	.66700	321.00000	-.00770
2.498	7.359	-.02940	-.11120	-.00240	-.00830	-.02910	.01440	.67080	321.00000	-.01010
2.498	9.380	-.03340	-.14550	-.00260	-.01120	-.04070	.01970	.67500	321.00000	-.01350
	GRADIENT	.00032	-.01549	-.00058	-.00102	-.00475	.00223	-.00026	.00000	-.00156

RUN NO. 473/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-4.715	-.02170	.07700	.00190	.00630	.02100	-.01020	.66620	288.20000	.00750
3.001	-2.671	-.02280	.04680	.00100	.00400	.01420	-.00680	.66860	288.20000	.00490
3.001	-.627	-.01900	.01400	.00060	.00130	.00480	-.00230	.66390	288.20000	.00180
3.001	.396	-.01830	-.00240	.00010	.00000	.00040	-.00020	.66260	288.20000	.00030
3.001	1.426	-.01850	-.01670	-.00040	-.00130	-.00360	.00180	.66310	288.20000	-.00110
3.001	3.471	-.02300	-.04850	-.00080	-.00410	-.01420	.00670	.66880	288.20000	-.00440
3.001	5.510	-.02220	-.07850	-.00160	-.00640	-.01940	.00970	.66710	288.20000	-.00660
3.001	7.567	-.02600	-.10980	-.00130	-.00900	-.02990	.01430	.67350	288.20000	-.00970
3.001	9.616	-.02730	-.14140	-.00180	-.01140	-.03800	.01820	.67430	288.20000	-.01210
	GRADIENT	.00013	-.01540	-.00033	-.00127	-.00430	.00207	-.00008	.00000	-.00146

RUN NO. 477/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF/D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-4.918	-.01580	.07410	.00110	.00660	.01990	-.00960	.66070	252.70000	.00660
3.496	-2.811	-.01680	.04390	.00060	.00380	.01270	-.00590	.66300	252.70000	.00410
3.496	-.700	-.01210	.01290	.00040	.00110	.00510	-.00230	.65550	252.70000	.00170
3.496	.350	-.01200	-.00160	.00030	.00030	.00170	-.00060	.65550	252.70000	.00040
3.496	1.406	-.01150	-.01470	.00020	-.00170	-.00160	.00100	.65410	252.70000	-.00070
3.496	3.514	-.01360	-.04570	-.00020	-.00440	-.00950	.00480	.65720	252.70000	-.00340
3.496	5.630	-.01670	-.07500	-.00110	-.00680	-.01720	.00870	.66690	252.70000	-.00590
3.496	7.742	-.01750	-.10430	-.00210	-.00920	-.02550	.01240	.66520	252.70000	-.00840
3.496	9.850	-.01800	-.13160	-.00380	-.01050	-.03080	.01490	.66680	252.70000	-.01000
	GRADIENT	.00049	-.01416	-.00014	-.00130	-.00347	.00159	-.00079	-.00000	-.00118

ARC 87-747 OASXC B C H F W V NOM. RN/L

(AEL027) ( 07 MAR 74 )

## REFERENCE DATA

SEEF = 2.4210 SQ.FT.  
 LREF = 14.2440 IN.  
 BREF = 28.1004 IN.  
 SCALE = .0350 SCALE

MRP = 32.3010 IN.  
 YMRP = .0000 IN.  
 ZMRP = 11.2500 IN.

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPOBRK = 25.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 470/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF/D	CY	CYN	CBL	CVV	CYNV	KCP/L	Q	CBLV
2.498	-4.736	-.04120	.06470	.00990	.00760	-.00130	-.00100	.65590	322.20000	.00210
2.496	-2.725	-.03780	.03560	.00680	.00410	-.00320	-.00030	.65400	322.20000	.00100
2.496	-.725	-.03810	.01020	.00220	.00140	.00010	-.00020	.65420	322.20000	.00070
2.498	.282	-.03860	-.00120	-.00060	.00040	.00150	-.00050	.65440	322.20000	.00050
2.498	1.301	-.03710	-.01310	-.00330	-.00090	.00030	-.00110	.65370	322.20000	.00030
2.496	3.328	-.03840	-.03660	-.00760	-.00350	.00050	-.0011	.65440	322.20000	-.00020
2.496	5.342	-.04130	-.06240	-.00990	-.00740	.00040	.00024	.65590	322.20000	-.00140
2.498	7.372	-.04060	-.09670	-.01160	-.01170	-.0032	.00030	.65520	322.20000	-.00340
2.498	9.400	-.04180	-.12800	-.01370	-.01560	-.00930	.00610	.65600	322.20000	-.00500
2.498	GRADIENT	.00030	-.01249	-.00224	-.00135	.00100	-.00008	-.00016	-.00000	-.00026

RUN NO. 474/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF/D	CY	CYN	CBL	CVV	CYNV	KCP/L	Q	CBLV
3.001	-4.716	-.03320	.06580	.00730	.00860	.00390	-.00030	.65390	288.20000	.00310
3.001	-2.672	-.02890	.03650	.00500	.00500	.00010	-.00100	.65110	288.20000	.00170
3.001	-.632	-.02960	.00980	.00160	.00180	-.00020	-.00010	.65170	288.20000	.00070
3.001	.380	-.02880	-.00190	-.00040	.00030	.00050	-.00020	.65110	288.20000	.00040
3.001	1.405	-.02660	-.01450	-.00230	-.00120	.00120	-.00020	.64980	288.20000	-.00010
3.001	3.466	-.02920	-.03950	-.00570	-.00460	.00040	.00080	.65140	288.20000	-.00120
3.001	5.518	-.03260	-.06690	-.00780	-.00820	-.00320	.00270	.65360	288.20000	-.00240
3.001	7.576	-.03310	-.09540	-.00950	-.01230	-.00840	.00510	.65380	288.20000	-.00390
3.001	9.634	-.03370	-.12430	-.01080	-.01690	-.01450	.00800	.65430	288.20000	-.00580
3.001	GRADIENT	.00031	-.01281	-.00163	-.00160	-.00029	.00041	-.00031	.00000	-.00051

RUN NO. 478/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF/D	CY	CYN	CBL	CVV	CYNV	KCP/L	Q	CBLV
3.496	-4.918	-.01930	.06270	.00580	.00930	.00640	-.00030	.64630	253.10000	.00310
3.496	-2.811	-.02150	.03430	.00380	.00530	.00280	-.00190	.64780	253.10000	.00190
3.496	-.711	-.01630	.00840	.00160	.00140	.00070	-.00040	.64430	253.10000	.00070
3.496	.335	-.01720	-.00290	.00010	-.00020	.00070	-.00020	.64490	253.10000	.00030
3.496	1.395	-.01620	-.01400	-.00160	-.00190	.00030	-.00020	.64420	253.10000	-.00010
3.496	3.519	-.01930	-.03820	-.00400	-.00560	-.00110	.00140	.64640	253.10000	-.00140
3.496	5.638	-.02080	-.06470	-.00640	-.00930	-.00330	.00330	.64740	253.10000	-.00270
3.496	7.750	-.02070	-.08970	-.00910	-.01300	-.00920	.00510	.64730	253.10000	-.00380
3.496	9.873	-.02220	-.11830	-.01140	-.01620	-.01330	.00720	.64860	253.10000	-.00520
3.496	GRADIENT	.00027	-.01189	-.00118	-.00176	-.00079	.00057	-.00017	.00000	-.00052

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS5C

PAGE 129

ARC 87-747 QAS5C B C H F W V NOM. RNVL

(AEL020) ( 07 MAR 74 )

## REFERENCE DATA

SRF = 2.4210 SQ.FT.  
 LREF = 14.2440 IN.  
 BRF = 20.1054 IN.  
 SCALE = .0300 SCALE

YMRP = 32.3010 IN.  
 YMRP = .0000 IN.  
 ZMRP = 11.2500 IN.

BETA = .000 ELEVON = .000  
 AILRON = .000 BCFAP = .000  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 419/ 0 RNVL = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	KCP/L	Q	CBLV
2.499	-1.566	.00200	.00330	-.00020	-.00010	.00360	-.00140	.64800	324.70000	.00080
2.499	-1.138	.00160	.00000	-.00030	-.00010	.00360	-.00140	.64760	324.70000	.00070
2.499	1.414	-.00120	.00050	-.00030	-.00010	.00280	-.00110	.70130	324.70000	.00060
2.499	3.455	-.00410	-.00010	-.00020	-.00010	.00230	-.00090	.65930	324.70000	.00040
2.499	5.464	-.00870	.00050	-.00020	-.00020	.00230	-.00090	.65910	324.70000	.00040
2.499	7.473	-.01050	.00100	-.00020	-.00010	.00290	-.00110	.65420	324.70000	.00050
2.499	9.517	-.01470	-.00040	-.00010	-.00020	.00280	-.00110	.65380	324.70000	.00050
2.499	12.600	-.01720	-.00090	-.00030	-.00010	.00320	-.00120	.65010	324.70000	.00060
2.499	15.630	-.02130	-.00120	-.00030	-.00010	.00380	-.00140	.64920	324.70000	.00070
2.499	18.720	-.02650	.00000	-.00040	-.00020	.00290	-.00110	.65030	324.70000	.00060
2.499	21.730	-.03390	-.00010	-.00040	-.00010	.00210	-.00080	.65130	324.70000	.00050
2.499	24.800	-.04650	-.00040	-.00060	-.00030	.00230	-.00080	.65300	324.70000	.00050
2.499	27.370	-.05620	-.00090	-.00100	-.00060	.00340	-.00110	.65420	324.70000	.00060
GRADIENT		-.00155	-.00054	.00001	-.00000	-.00035	.00013	.00466	.00000	-.00009

RUN NO. 420/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	KCP/L	Q	CBLV
3.001	-1.609	-.00860	.00340	.00010	.00010	.00320	-.00120	.57160	290.20000	.00070
3.001	-1.137	-.00610	.00360	.00020	.00010	.00290	-.00110	.58610	290.20000	.00060
3.001	1.361	-.00690	.00180	.00020	.00010	.00230	-.00090	.47070	290.20000	.00050
3.001	3.390	-.00530	.00060	.00020	.00000	.00190	-.00070	.68580	290.20000	.00040
3.001	5.420	-.00680	.00010	.00020	.00000	.00220	-.00080	.66140	290.20000	.00040
3.001	7.413	-.00670	-.00030	.00010	.00000	.00220	-.00080	.64990	290.20000	.00040
3.001	9.430	-.00280	.00040	.00010	.00000	.00220	-.00080	.64840	290.20000	.00050
3.001	12.480	-.01130	-.00070	.00020	.00000	.00230	-.00090	.64650	290.20000	.00060
3.001	15.530	-.01640	-.00080	.00020	.00000	.00270	-.00100	.64730	290.20000	.00060
3.001	18.590	-.01800	-.00060	.00000	.00010	.00220	-.00080	.64610	290.20000	.00050
3.001	21.630	-.02780	-.00130	-.00010	-.00090	.00190	-.00070	.64870	290.20000	.00040
3.001	24.680	-.03560	-.00130	-.00030	-.00040	.00290	-.00070	.65000	290.20000	.00040
3.001	27.230	-.04100	-.00670	.00020	-.00040	.00220	-.00080	.65010	290.20000	.00050
GRADIENT		.00058	-.00072	.00002	-.00002	-.00032	.00012	.02262	.00000	-.00007



TABULATED SOURCE DATA - QAS3C

DATE 13 JUL 74

(07 MAR 74 )

ARC 87-7, QAS3C B C N F W V NOM. RNVL

REFERENCE DATA

REF = 2.4210 54.77. 106P = 32.3010 IN. BETA = .000 ELEVON = .000  
 LREF = 14.2440 IN. 106P = .0000 IN. AILRON = .000 BDFLAP = .000  
 BREF = 28.1064 IN. 206P = 11.2500 IN. SPDRK = 55.000 RUDDER = .000  
 SCALE = .0300 SCALE ELEV-L = .000 ELEV-R = .000

PARAMETRIC DATA

RUN NO. 421/0 RNVL = 1.74 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	CLMP/D	CY	CYN	CHL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-0.59	-0.1170	.00430	.00040	.00020	.00340	-.00120	.56680	254.30000	.00070
3.496	-0.37	-0.1280	.00290	.00040	.00020	.00320	-.00120	.54680	254.30000	.00060
3.496	1.093	-0.0960	.00130	.00030	.00010	.00230	-.00090	.50980	254.30000	.00050
3.496	3.134	-0.0730	.00110	.00040	.00000	.00150	-.00060	.73590	254.30000	.00030
3.496	5.151	-0.0620	.00150	.00040	-.00010	.00160	-.00060	.67400	254.30000	.00040
3.496	7.176	-0.0580	.00080	.00040	-.00020	.00180	-.00070	.65060	254.30000	.00040
3.496	9.191	-0.0570	.00100	.00050	-.00020	.00150	-.00060	.64780	254.30000	.00040
3.496	12.220	-0.0730	.00030	.00040	-.00020	.00130	-.00050	.64270	254.30000	.00040
3.496	15.270	-0.1030	.00010	.00060	-.00020	.00140	-.00030	.64300	254.30000	.00130
3.496	18.290	-0.1480	.00080	.00060	-.00020	.00080	-.00020	.64430	254.30000	.00120
3.496	21.380	-0.1890	.00030	.00050	-.00030	.00060	-.00020	.64450	254.30000	.00120
3.496	24.370	-0.2600	.00130	.00020	-.00030	.00170	-.00020	.64640	254.30000	.00120
3.496	26.920	-0.3220	.00160	.00020	-.00020	.00190	-.00020	.64750	254.30000	.00030
	GRADIENT	.00124	-.00073	-.00050	-.00055	-.00040	.00016	.04201	.00000	-.00009

ARC 87-747 OA53C B C M F W1 V NOM. RN/L

(AELA29) ( 06 SEP 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 ATRON = .000 BOFLAP = -11.700  
 SDBRK = 55.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. U/ D RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMP40	CY	CYN	CBL	CV	CYNV	XCP/L	Q	CBLV
2.498	-4.643	-.00100	.08330	.00410	-.02010	.02650	-.01 00	.62080	323.10000	.00770
2.498	-2.660	.00210	.04440	.00390	-.00190	.01140	-.00390	.65520	323.10000	.00320
2.498	.304	.00440	-.01120	.00600	-.00390	-.00880	.00340	.67530	323.10000	-.00320
2.498	3.378	.00380	-.06340	.00720	-.00600	.02970	-.01490	.67200	323.10000	-.00970
2.498	5.427	.00250	-.08020	.00560	-.00730	-.04410	.02160	.65740	323.10000	-.01410
2.498	7.093	.00110	-.12060	.00380	-.02870	-.05630	.02720	.64400	323.10000	-.01750
	GRADIENT	.00059	-.01830	.00234	-.00072	-.00697	.00321	.00610	-.00000	-.00217

RUN NO. U/ D RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMP40	CY	CYN	CBL	CV	CYNV	XCP/L	Q	CBLV
3.001	-4.628	-.00920	.08480	.00270	-.00060	.02570	-.01100	.54500	290.10000	.00730
3.001	-2.614	-.00810	.04110	.00130	-.00130	.01120	-.00420	.55890	290.10000	.00310
3.001	-.605	-.00340	.00970	.00350	-.00270	-.00100	.00180	.60420	290.10000	-.00090
3.001	.398	-.00320	-.00920	.00580	-.00340	-.00330	.00510	.60650	290.10000	-.00290
3.001	1.443	-.00370	-.02810	.00620	-.00410	-.01470	.00810	.60180	290.10000	-.00480
3.001	3.526	-.00180	-.06340	.00680	-.00550	-.02790	.01400	.61780	290.10000	-.00880
3.001	5.606	-.00280	-.10560	.00830	-.00580	-.04190	.02050	.61080	290.10000	-.01280
3.001	7.297	-.00480	-.13020	.00990	-.00800	-.05250	.02550	.59480	290.10000	-.01590
	GRADIENT	.00096	-.01796	.00250	-.00074	-.00655	.00337	.00947	.00000	-.00197

RUN NO. U/ D RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMP40	CY	CYN	CBL	CV	CYNV	XCP/L	Q	CBLV
3.496	-4.833	-.01320	.08040	.00230	-.00030	.02100	-.00910	.50870	257.00000	.00600
3.496	-2.752	-.01170	.04360	.00370	-.00110	.00930	-.00350	.54100	257.00000	.00250
3.496	-.682	-.00780	.01080	.00510	-.00240	-.00150	.00170	.57080	257.00000	-.00080
3.496	.356	-.01090	-.00760	.00370	-.00300	-.00770	.00460	.54500	257.00000	-.00260
3.496	3.572	-.00720	-.05810	.00720	-.00480	-.02480	.01250	.57970	257.00000	-.00760
3.496	5.722	-.00560	-.09450	.00810	-.00550	-.03800	.01860	.59020	257.00000	-.01120
3.496	7.462	-.00560	-.13010	.00810	-.00720	-.04600	.02250	.59520	257.00000	-.01370
	GRADIENT	.00268	-.01644	.00059	-.00062	-.00344	.00257	.00947	.00000	-.00162

(AELASO) ( 06 SEP 74 )

ARC 87-747 0453C B C M F W1 V NOM. RN/L

REFERENCE DATA

REF = 2.4210 34.FT. 10MRP = 32.3010 IN. ALPHA = 10.000 ELEVON = .000  
 LREF = 14.2440 IN. 0MRP = .0000 IN. AIRON = .000 RUDFLAP = -11.700  
 9REF = 28.1004 IN. 2MRP = 11.2500 IN. SPDRK = 55.000 ELEVON = -10.000  
 SCALE = .0300 SCALE ELEV-L = .000 ELEV-R = .000

PARAMETRIC DATA

RUN NO. C/ D RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CUMFAD	CY	CYN	CBL	CYV	CNV	XCP/L	Q	CBV
2.498	-4.735	-0.01800	.06920	.00670	.00300	.01790	-.00770	.65240	325.70000	.00370
2.498	-2.721	-0.01190	.03580	.00680	.00000	.00840	-.00290	.64780	325.70000	.00240
2.498	.296	-0.00780	-.01080	.00520	-.00320	-.00730	.00450	.64290	325.70000	-.00270
2.498	3.322	-0.00740	-.05650	.00420	-.00660	-.02330	.01220	.64210	325.70000	-.00780
2.498	5.339	-0.00990	-.08930	.00450	-.00950	-.03410	.01730	.64390	325.70000	-.01130
2.498	7.360	-0.00990	-.12150	.00420	-.01210	-.03980	.02080	.64520	325.70000	-.01370
2.498	9.376	-0.01310	-.15790	.00470	-.01540	-.05260	.02660	.64890	325.70000	-.01750
GRADIENT		.00107	-.01556	-.00034	-.00117	-.02513	.00247	-.00129	-.00000	-.00168

RUN NO. C/ D RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CUMFAD	CY	CYN	CBL	CYV	CNV	XCP/L	Q	CBV
3.001	-4.716	-0.01020	.06940	.00540	.00410	.01540	-.00710	.64800	291.60000	.00550
3.001	-2.669	-0.00720	.03730	.00510	.00150	.00760	-.00290	.64380	291.60000	.00240
3.001	-.628	-0.00580	.00640	.00500	-.00140	-.00240	.00190	.64180	291.60000	-.00280
3.001	.397	-0.00630	-.00940	.00480	-.00280	-.00700	.00420	.64250	291.60000	-.00240
3.001	1.422	-0.00280	-.02520	.00450	-.00410	-.01200	.00660	.63710	291.60000	-.00390
3.001	5.521	-0.00450	-.08660	.00420	-.00960	-.02850	.01320	.63950	291.60000	-.00980
3.001	7.562	-0.00840	-.11860	.00490	-.01250	-.04020	.02050	.64520	291.60000	-.01320
3.001	9.614	-0.00910	-.15130	.00490	-.01920	-.04940	.02480	.64610	291.60000	-.01590
GRADIENT		.00101	-.01538	-.00113	-.00135	-.00450	.00224	-.00147	.00000	-.00154

RUN NO. C/ D RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CUMFAD	CY	CYN	CBL	CYV	CNV	XCP/L	Q	CBV
3.498	-4.919	-0.01110	.07010	.00320	.00340	.01510	-.00710	.65240	256.20000	.00520
3.498	-2.811	-0.00540	.03680	.00380	.00200	.00560	-.00230	.64250	256.20000	.00210
3.498	.351	-0.00320	-.01250	.00440	-.00280	-.00740	.00420	.63840	256.20000	-.00230
3.498	1.405	.00000	-.02510	.00500	-.00450	-.00180	.00320	.63270	256.20000	-.00260
3.498	3.522	-0.00430	-.05360	.00560	-.00750	-.02020	.01060	.64040	256.20000	-.00660
3.498	5.628	-0.00450	-.08280	.00510	-.01020	-.02830	.01480	.64070	256.20000	-.00930
3.498	7.744	-0.00650	-.11390	.00410	-.01250	-.03680	.01870	.64440	256.20000	-.01180
3.498	9.849	-0.00730	-.14140	.00270	-.01410	-.04280	.02150	.64550	256.20000	-.01360
GRADIENT		.00092	-.01474	.00028	-.00153	-.00376	.00196	-.00164	-.00000	-.00135

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

PAGE 133

ARC 87-747 0453C B C M F M V NOM. RNVL

(AEL031) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2300 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEWON = .000  
 AIRON = .000 BOFLAP = -11.700  
 SPBRK = 55.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 451/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.498	-4.735	-.02940	.06030	.01380	-.00380	-.00760	.00240	.64890	326.80000	.00000
2.498	-2.731	-.02450	.02840	.01180	.00150	-.01120	.00480	.64620	326.80000	-.00170
2.498	-.723	-.02430	.07260	.00710	-.00130	-.00820	.00450	.64620	326.80000	-.00210
2.498	.281	-.02220	.00930	.00420	-.00240	-.00630	.00400	.64500	326.80000	-.00220
2.498	1.297	-.02150	-.02140	.00150	-.00370	-.00480	.00370	.64460	326.80000	-.00250
2.498	3.319	-.02550	-.04450	-.00410	-.00610	-.00050	.00250	.64680	326.80000	-.00250
2.498	5.347	-.02750	-.07290	-.00700	-.00970	-.00250	.00390	.64770	326.80000	-.00360
2.498	7.369	-.02900	-.10420	-.00830	-.01410	-.00910	.00700	.64870	326.80000	-.00560
2.498	9.398	-.02860	-.13740	-.01010	-.01800	-.01590	.01010	.64840	326.80000	-.00740
GRADIENT		.00058	-.01292	-.00228	-.00144	.00101	-.00004	-.00031	-.00000	-.00029

RUN NO. 454/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-4.715	-.02530	.06330	.01000	.00720	.00000	-.00080	.64820	293.30000	.00170
3.001	-2.681	-.01840	.03080	.00900	.00280	-.00660	.00270	.64410	293.30000	-.00050
3.001	-.643	-.01650	.00400	.00580	-.00040	-.00680	.00360	.64300	293.30000	-.00150
3.001	.386	-.01730	-.00860	.00310	-.00180	-.00570	.00340	.64350	293.30000	-.00180
3.001	3.460	-.01780	-.04530	-.00300	-.00640	-.00410	.00360	.64370	293.30000	-.00290
3.001	5.519	-.02010	-.07310	-.00550	-.01010	-.00770	.00550	.64520	293.30000	-.00420
3.001	7.574	-.02010	-.10270	-.00640	-.01440	-.01420	.00860	.64530	293.30000	-.00610
3.001	9.629	-.01970	-.13430	-.00730	-.01910	-.02090	.01170	.64500	293.30000	-.00810
GRADIENT		.00081	-.01318	-.00165	-.00164	-.00036	.00048	-.00048	-.00000	-.00054

RUN NO. 457/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-4.919	-.01670	.06160	.00720	.00870	.00030	-.00230	.64400	256.30000	.00230
3.496	-2.818	-.01070	.02890	.00650	.00390	-.00270	.00100	.64020	256.30000	.00030
3.496	-.719	-.01240	.00390	.00450	-.00030	-.00530	.00280	.64130	256.30000	-.00120
3.496	.335	-.01050	-.00880	.00280	-.00200	-.00470	.00280	.64000	256.30000	-.00150
3.496	1.391	-.01090	-.01890	.00120	-.00370	-.00430	.00290	.64020	256.30000	-.00190
3.496	3.509	-.01340	-.04390	-.00160	-.00720	-.00620	.00420	.64200	256.30000	-.00310
3.496	5.632	-.01530	-.07100	-.00360	-.01120	-.01090	.00650	.64330	256.30000	-.00450
3.496	7.754	-.01610	-.09900	-.00600	-.01490	-.01530	.00850	.64390	256.30000	-.00580
3.496	9.873	-.01330	-.12670	-.00810	-.01640	-.02030	.01100	.64210	256.30000	-.00740
GRADIENT		.00134	-.01233	-.00128	-.00188	-.00101	.00074	-.00022	-.00000	-.00052

ARC 87-747 C453C B C M F W V NOM. RN/L

(AELD32) (07 MAR 74)

## REFERENCE DATA

SPEF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. YMRP = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AILRON = .000 BDEFLAP = -11.700  
 SPDRK = 46.000 RUDDER = -20.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 491/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF-D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-4.633	-0.00540	0.07290	0.01010	-0.00370	0.01690	-0.00530	.56030	315.10000	.00420
2.499	-2.670	0.00180	0.03490	0.01130	-0.00540	0.00220	0.00160	.65520	315.10000	-0.00010
2.499	-1.689	0.00500	-0.00140	0.01180	-0.00660	-0.01060	0.00750	.67910	315.10000	-0.00430
2.499	.298	0.00370	0.01790	0.01210	-0.00730	-0.01740	0.01060	.69630	315.10000	-0.00640
2.499	1.324	0.00670	-0.03700	0.01220	-0.00800	-0.02480	0.01400	.69550	315.10000	-0.00850
2.499	3.376	0.00620	-0.07340	0.01310	-0.00940	-0.03870	0.02020	.68480	315.10000	-0.01290
2.499	5.428	0.00500	-0.10960	0.01410	-0.01060	-0.05230	0.02630	.67710	315.10000	-0.01700
2.499	7.121	0.00420	-0.14270	0.01510	-0.01160	-0.06360	0.03150	.67110	315.10000	-0.02020
	GRADIENT	0.00139	-0.01817	0.00535	-0.00570	-0.00689	0.00316	.01490	-0.00000	-0.00213

RUN NO. 494/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF-D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.000	-4.636	-0.01190	0.07770	0.00790	-0.00250	0.01640	-0.00570	.44700	287.20000	.00420
3.000	-2.619	0.00740	0.04030	0.00940	-0.00410	0.00230	0.00070	.48740	287.20000	-0.00010
3.000	-1.613	0.00740	0.00310	0.01030	-0.00530	-0.00950	0.00650	.55600	287.20000	-0.00360
3.000	.389	0.00480	0.01460	0.01050	-0.00610	-0.01640	0.00960	.58580	287.20000	-0.00560
3.000	1.438	0.00330	-0.03370	0.01090	-0.00680	-0.02320	0.01270	.60140	287.20000	-0.00750
3.000	3.321	0.00380	-0.07230	0.01120	-0.00800	-0.03380	0.01840	.59810	287.20000	-0.01140
3.000	5.620	0.00290	-0.10610	0.01250	-0.00920	-0.04930	0.02450	.60810	287.20000	-0.01520
3.000	7.325	0.00110	-0.13710	0.01370	-0.01030	-0.05960	0.02930	.62410	287.20000	-0.01820
	GRADIENT	0.00120	-0.01817	0.00040	-0.00567	-0.00638	0.00236	.02092	-0.00000	-0.00191

RUN NO. 497/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF-D	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-4.635	-0.01920	0.07680	0.00750	-0.00260	0.01280	-0.00440	.40760	252.20000	.00320
3.496	-2.764	0.01240	0.03870	0.00840	-0.00380	0.00130	0.00100	.52120	252.20000	-0.00010
3.496	-1.686	0.01210	0.00420	0.00920	-0.00480	-0.00870	0.00580	.52710	252.20000	-0.00330
3.496	.351	0.00930	0.01240	0.00950	-0.00530	-0.01380	0.00820	.53720	252.20000	-0.00480
3.496	1.421	0.00830	-0.03020	0.00990	-0.00590	-0.02050	0.01090	.57390	252.20000	-0.00630
3.496	3.374	0.00780	-0.06530	0.01050	-0.00690	-0.03070	0.01590	.57670	252.20000	-0.00960
3.496	5.714	0.00590	-0.10010	0.01100	-0.00800	-0.04290	0.02140	.59130	252.20000	-0.01290
3.496	7.492	0.00380	-0.12960	0.01110	-0.00890	-0.05070	0.02530	.60500	252.20000	-0.01530
	GRADIENT	0.00130	-0.01662	0.00036	-0.00551	-0.00515	0.00240	.01888	-0.00000	-0.00151

DATE 13 SEP 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F W1 V NOM. RN/L

(AEL033) ( 07 MAR 74 )

## REFERENCE DATA

1007 = 2.4210 36.0 FT.  
 1007 = 14.2440 IN.  
 1007 = 78.1004 IN.  
 SCALE = .0300 SCALE

ALPHA = 10.000 ELEVON = .000  
 AIRLON = .000 BOFLAP = -11.700  
 SPDBRK = 46.000 RUDDER = -20.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 492/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMPLO	CY	CYN	CBL	CYV	CYN	XCP/L	Q	CBLV
2.499	-4.739	-0.01360	.06100	.01160	.00010	.00970	-.00280	.65210	317.80000	.00270
2.499	-2.722	-0.01260	.02860	.01160	-.00270	.00010	.00190	.64900	317.80000	-.00050
2.499	-7.712	-0.00840	-.00430	.01090	-.00310	-.01010	.00680	.64380	317.80000	-.00380
2.499	.266	-0.00780	.02600	.00350	-.00340	-.01500	.00910	.64310	317.80000	-.00550
2.499	1.304	-0.01360	-.03490	.02940	-.00700	-.01980	.01150	.64960	317.80000	-.00700
2.499	3.325	-0.0610	-.06690	.00910	-.00950	-.03130	.01680	.64060	317.80000	-.01060
2.499	5.339	-0.00870	-.09940	.00910	-.01250	-.04140	.02150	.64390	317.80000	-.01400
2.499	7.360	-0.00770	-.13100	.00650	-.01490	-.04690	.02480	.64270	317.80000	-.01630
2.499	9.379	-0.00900	-.16480	.00780	-.01740	-.05720	.02950	.64420	317.80000	-.01940
GRADIENT		.00094	-.01494	-.00051	-.00115	-.00505	.00242	-.00117	-.00000	-.00164

RUN NO. 496/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMPLO	CY	CYN	CBL	CYV	CYN	XCP/L	Q	CBLV
3.000	-4.714	-0.01450	.06340	.00970	.00180	.00800	-.00280	.65450	287.10000	.00290
3.000	-2.674	-0.01000	.03330	.00930	-.00070	-.00010	.00140	.64800	287.10000	-.00010
3.000	-.633	-.00460	.00050	.00910	-.00370	-.01010	.00610	.63990	287.10000	-.00320
3.000	.393	-.00400	-.01590	.00880	-.00500	-.01460	.00840	.63890	287.10000	-.00480
3.000	1.421	-0.0270	-.03250	.00950	-.00850	-.01920	.01070	.63700	287.10000	-.00630
3.000	3.463	-0.00290	-.06470	.00860	-.00850	-.03050	.01600	.63730	287.10000	-.00980
3.001	5.510	-0.00320	-.09440	.00800	-.01190	-.03560	.01900	.63750	287.10000	-.01210
3.001	7.561	-0.00650	-.12490	.00790	-.01440	-.04530	.02340	.64240	287.10000	-.01510
3.000	9.607	-0.00840	-.15570	.00730	-.01670	-.05300	.02690	.64540	287.10000	-.01730
GRADIENT		.00152	-.01574	-.00015	-.00139	-.00469	.00229	-.00226	-.00000	-.00154

RUN NO. 498/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMPLO	CY	CYN	CBL	CYV	CYN	XCP/L	Q	CBLV
3.496	-4.920	-0.01320	.06390	.00740	.00320	.00850	-.00330	.65570	252.20000	.00300
3.496	-2.609	-0.00670	.03250	.00790	-.00020	-.00110	.00150	.64450	252.20000	-.00010
3.496	-.702	-0.00510	.00170	.00800	-.00310	-.00930	.00560	.64190	252.20000	-.00290
3.496	.352	-0.00310	-.01430	.00810	-.00480	-.01320	.00760	.63840	252.20000	-.00430
3.496	1.401	-0.00200	-.02920	.00840	-.00640	-.01720	.00960	.63640	252.20000	-.00560
3.496	3.519	-0.00070	-.06110	.00830	-.00920	-.02520	.01360	.63400	252.20000	-.00840
3.496	5.628	-0.00300	-.09000	.00730	-.01170	-.03320	.01750	.63810	252.20000	-.01090
3.496	7.740	-0.00220	-.11820	.00580	-.01360	-.04090	.02090	.63650	252.20000	-.01340
3.496	9.855	-0.00460	-.14670	.00410	-.01520	-.04540	.02110	.64000	252.20000	-.01470
GRADIENT		.00143	-.01479	-.00011	-.00147	-.00396	.00199	-.00247	-.00000	-.00134

ARC 87-747 0A53C B C H F W1 V NOM. RN/L

(AELA34) ( 06 SEP 74 )

## REFERENCE DATA

SRP = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. LREF = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
AILRON = .000 BOFLAP = -11.700  
SPDRK = 46.000 RUDDER = -20.000  
ELEV-R = .000 ELEV-R = .000

RUN NO. 0/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF40	CY	CYN	CBL	CW	CNV	XCP/L	Q	CBLV
2.499	-4.737	-0.3010	.03350	.01640	.00390	-0.01220	.00530	.64930	319.80000	-0.00190
2.499	-2.727	-0.02720	.02140	.01500	-0.00350	-0.01560	.00810	.64790	319.80000	-0.00380
2.499	-7.723	-0.02320	-0.00480	.01080	-0.00340	-0.01430	.00810	.64570	319.80000	-0.00430
2.499	.280	-0.02130	-0.01710	.00830	-0.00470	-0.01290	.00790	.64580	319.80000	-0.00460
2.499	1.296	-0.02190	-0.02880	.00550	-0.00600	-0.01110	.00740	.64500	319.80000	-0.00480
2.499	3.317	-0.02620	-0.05040	.00340	-0.00840	-0.00690	.00620	.64730	319.80000	-0.00480
2.499	5.342	-0.02140	-0.07650	-0.00310	-0.01150	-0.00760	.00690	.64910	319.80000	-0.00550
2.499	7.367	-0.02150	-0.10670	-0.00560	-0.01540	-0.01230	.00930	.64850	319.80000	-0.00690
2.499	9.393	-0.02160	-0.13860	-0.00820	-0.01910	-0.01800	.01140	.64900	319.80000	-0.00830
GRADIENT		.00069	-0.01287	-0.00205	-0.00150	.00076	.00007	-0.00036	-0.00000	-0.00034

RUN NO. 0/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF40	CY	CYN	CBL	CW	CNV	XCP/L	Q	CBLV
3.000	-4.718	-0.02720	.05680	.01190	.00590	-0.00360	.00140	.64960	288.30000	-0.00020
3.001	-2.674	-0.01970	.02630	.01130	.00140	-0.01020	.00500	.64510	288.30000	-0.00200
3.000	.375	-0.01490	-0.01290	.00630	-0.00350	-0.01030	.00620	.64220	288.30000	-0.00350
3.001	1.409	-0.01610	-0.02500	.00430	-0.00510	-0.00930	.00600	.64290	288.30000	-0.00390
3.001	3.464	-0.02040	-0.04860	.00020	-0.00810	-0.00860	.00620	.64550	288.30000	-0.00460
3.000	5.520	-0.02050	-0.07470	-0.00280	-0.01120	-0.01110	.00750	.64550	288.30000	-0.00550
3.001	7.575	-0.02070	-0.10380	-0.00450	-0.01530	-0.01620	.00980	.64560	288.30000	-0.00690
3.001	9.630	-0.01950	-0.13360	-0.00590	-0.01980	-0.02220	.01260	.64500	288.30000	-0.00860
GRADIENT		.00094	-0.01306	-0.00148	-0.00169	-0.00048	.00004	-0.00057	-0.00000	-0.00057

RUN NO. 0/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMF40	CY	CYN	CBL	CW	CNV	XCP/L	Q	CBLV
3.496	-4.919	-0.01870	.05750	.00940	.00720	-0.00010	-0.00030	.64550	252.40000	-0.00100
3.496	-2.816	-0.01780	.02680	.00880	.00250	-0.00630	.00310	.64500	252.40000	-0.00100
3.496	.712	-0.01280	-0.00030	.00700	-0.00150	-0.00910	.00500	.64160	252.40000	-0.00250
3.496	3.41	-0.01220	-0.01140	.00520	-0.00320	-0.00860	.00510	.64120	252.40000	-0.00280
3.496	1.400	-0.01060	-0.02190	.00340	-0.00480	-0.00810	.00500	.64010	252.40000	-0.00310
3.496	3.511	-0.01300	-0.04550	.00050	-0.00820	-0.00960	.00610	.64170	252.40000	-0.00420
3.496	5.634	-0.01560	-0.07160	-0.00220	-0.01170	-0.01270	.00760	.64360	252.40000	-0.00520
3.496	7.753	-0.01540	-0.09880	-0.00490	-0.01520	-0.01640	.00930	.64350	252.40000	-0.00630
3.496	9.865	-0.01410	-0.12570	-0.00720	-0.01870	-0.02110	.01160	.64260	252.40000	-0.00780
GRADIENT		.00091	-0.01212	-0.00109	-0.00161	-0.00102	.00071	-0.00061	-0.00000	-0.00060

AFC 87-747 0453C B C M F W1 V NOM. RN/L

(AELA33) ( 06 SEP 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1324 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDBRK = 25.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. D/ O RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLAMPD	CY	CYN	CBL	CV	CVM	XCP/L	Q	CBLV
2.498	-4.847	-0.1400	.07940	.00490	-.00070	.02480	-.01000	.45960	310.80000	.00720
2.498	-2.667	-0.1080	.04270	.00580	-.00200	.01120	-.00370	.47910	310.80000	.00310
2.498	-.687	-0.0810	.00840	.00600	-.00320	-.00100	.00190	.55120	310.80000	-.00090
2.498	.300	-0.0930	-.00960	.00610	-.00370	-.00770	.00490	.49420	310.80000	-.00290
2.498	1.329	-0.0870	-.02670	.00610	-.00440	-.01490	.00810	.54750	310.80000	-.00500
2.498	3.377	-0.0990	-.06170	.00660	-.00550	-.02800	.01390	.54200	310.80000	-.00910
2.498	5.425	-0.1140	-.09760	.00760	-.00670	-.04160	.02010	.52040	310.80000	-.01320
2.498	7.141	-0.1280	-.12980	.00810	-.00760	-.05280	.02510	.50660	310.80000	-.01630
GRADIENT		.00052	-.01756	.00019	-.00060	-.00656	.00297	.01095	.00000	-.00203

RUN NO. D/ O RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLAMPD	CY	CYN	CBL	CV	CVM	XCP/L	Q	CBLV
3.001	-4.830	-0.2180	.08350	.00360	-.00020	.02340	-.00970	.31600	282.50000	.00680
3.001	-2.816	-0.0290	.04630	.00470	-.00150	.01040	-.00380	.36470	282.50000	.00300
3.001	-.608	-0.0170	.01070	.00510	-.00250	-.00080	.00150	.46950	282.50000	-.00060
3.001	1.440	-0.0130	-.02480	.00500	-.00370	-.01350	.00720	.45650	282.50000	-.00420
3.001	3.522	-0.0130	-.05940	.00510	-.00450	-.02550	.01250	.49430	282.50000	-.00790
3.001	5.605	-0.0150	-.09490	.00580	-.00540	-.03860	.01830	.49190	282.50000	-.01150
3.001	7.320	-0.0160	-.12510	.00650	-.00620	-.04830	.02270	.47470	282.50000	-.01420
GRADIENT		.00085	-.01753	.00016	-.00053	-.00598	.00272	.02197	.00000	-.00180

RUN NO. D/ O RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLAMPD	CY	CYN	CBL	CV	CVM	XCP/L	Q	CBLV
3.498	-4.836	-0.0230	.07990	.00330	-.00040	.01860	-.00790	.37550	246.70000	.00540
3.498	-2.756	-0.0210	.04470	.00400	-.00120	.00860	-.00320	.40540	246.70000	.00250
3.498	-.687	-0.0170	.01140	.00420	-.00200	-.00100	.00130	.48190	246.70000	-.00250
3.498	.353	-0.0180	-.00910	.00430	-.00240	-.00590	.00360	.48430	246.70000	-.00190
3.498	1.427	-0.0200	-.02530	.00500	-.00300	-.01170	.00610	.46160	246.70000	-.00320
3.498	3.572	-0.0170	-.05640	.00470	-.00380	-.02260	.01080	.49270	246.70000	-.00640
3.498	5.718	-0.0190	-.08960	.00490	-.00450	-.03350	.01580	.46790	246.70000	-.00950
3.498	7.486	-0.0190	-.11940	.00470	-.00520	-.04110	.01940	.46810	246.70000	-.01180
GRADIENT		.00066	-.01630	.00018	-.00041	-.00468	.00222	.01431	-.00000	-.00140



ARC 87-747 OAS3C B C M F W1 V NOM. RN/L

(AELD36) ( 07 MAR 74 )

## REFERENCE DATA

WREF = 2.4210 SQ.FT. WREF = 32.3010 IN.  
LREF = 14.2440 IN. WREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0350 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 25.000 RUDDER = -10.000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 459/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMP/D	CY	CYN	CBL	CYV	CNV	XCP/L	Q	CBLV
2.498	-4.733	-.02620	.06740	.00750	.00250	.01570	-.00650	.66530	311.50000	.00510
2.498	-2.723	-.02280	.03440	.00690	.00150	.00720	-.00230	.66150	311.50000	.00210
2.498	-1.707	-.01210	.00380	.00370	-.00210	-.00240	.00210	.66150	311.50000	-.00100
2.498	.300	-.01880	.01080	.00480	-.00310	-.00730	.00440	.65720	311.50000	-.00260
2.498	1.305	-.02180	.02490	.00400	-.00390	-.01170	.00660	.66130	311.50000	-.00390
2.498	3.322	-.01910	.00570	.00350	-.00630	-.02230	.01150	.65740	311.50000	-.00740
2.498	5.336	-.02280	.08970	.00340	-.00890	-.03280	.01630	.66120	311.50000	-.01080
2.498	7.354	-.02170	.11190	.00190	-.01130	-.03780	.01930	.66000	311.50000	-.01290
2.498	9.379	-.02600	.15380	.00100	-.01360	-.04820	.02390	.66500	311.50000	-.01600
GRADIENT	.00080		-.01518	-.00054	-.00107	-.00471	.00223	-.00086	.00000	-.00154

RUN NO. 482/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMP/D	CY	CYN	CBL	CYV	CNV	XCP/L	Q	CBLV
3.001	-4.719	-.02070	.06900	.00620	.00360	.01370	-.00610	.66250	282.30000	.00500
3.001	-2.675	-.01840	.03850	.00520	.00130	.01980	-.00680	.66040	282.30000	.00370
3.001	-.628	-.01500	.00740	.00460	-.00130	-.00280	.00190	.65550	282.30000	-.00070
3.001	.398	-.01400	.00870	.00400	-.00250	-.00700	.00400	.65530	282.30000	-.00210
3.001	1.422	-.01370	.02400	.00350	-.00370	-.01090	.00590	.65420	282.30000	-.00340
3.001	3.464	-.01610	.05550	.00300	-.00630	-.02130	.01070	.65710	282.30000	-.00670
3.001	5.516	-.01710	.08700	.00230	-.00860	-.02610	.01360	.65880	282.30000	-.00880
3.001	7.563	-.02030	.11520	.00170	-.01090	-.03610	.01800	.66290	282.30000	-.01180
3.001	9.611	-.02270	.14700	.00130	-.01320	-.04380	.02150	.66610	282.30000	-.01400
GRADIENT	.00065		-.01523	-.00040	-.00121	-.00495	.00227	-.00087	-.00000	-.00149

RUN NO. 485/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMP/D	CY	CYN	CBL	CYV	CNV	XCP/L	Q	CBLV
3.498	-4.982	-.01780	.06870	.00420	.00480	.01250	-.00590	.66400	247.00000	.00470
3.498	-2.811	-.01380	.03780	.00390	.00190	.00430	-.00180	.65700	247.00000	.00200
3.498	-.704	-.01320	.00680	.00380	-.00090	-.00330	.00190	.66020	247.00000	-.00050
3.498	.353	-.01320	.00720	.00350	-.00230	-.00660	.00360	.65740	247.00000	-.00170
3.498	1.409	-.01070	.02200	.00360	-.00370	-.01000	.00530	.65250	247.00000	-.00290
3.498	3.517	-.01090	.05180	.00320	-.00630	-.01800	.00900	.65230	247.00000	-.00560
3.498	5.632	-.01640	.08070	.00200	-.00870	-.02510	.01260	.66170	247.00000	-.00790
3.498	7.737	-.01390	.10870	.00060	-.01080	-.03290	.01610	.65740	247.00000	-.01020
3.498	9.853	-.01770	.13740	-.00110	-.01220	-.03790	.01840	.66480	247.00000	-.01180
GRADIENT	.00077		-.01424	-.00011	-.00132	-.00357	.00175	-.00129	.00000	-.00121

ARC 87-747 0453C B C M F M V NOM. RN/L

(AEL037) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 EREF = 26.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
 AILRON = .000 BDFAP = -11.700  
 SPOBRK = 25.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 460/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBV
2.498	-4.796	-0.03850	.17960	.02470	.00780	-.00720	.00230	.65410	314.10000	-.00000
2.498	-2.725	-0.03530	.02880	.01030	.00190	-.00980	.00410	.65220	314.10000	-.00140
2.498	-.722	-0.03290	.00310	.00600	-.00090	-.00680	.00370	.65110	314.10000	-.00170
2.498	.281	-0.03280	-.00870	.00360	-.00210	-.00550	.00350	.65100	314.10000	-.00190
2.498	1.287	-0.03550	-.00470	-.00270	-.00290	-.00410	.00310	.65250	314.10000	-.00210
2.498	3.317	-0.03440	-.04420	-.00330	-.00600	-.00150	.00280	.65190	314.10000	-.00260
2.498	5.342	-0.03670	-.07050	-.00680	-.00950	-.00300	.00400	.65300	314.10000	-.00360
2.498	7.367	-0.03530	-.10130	-.00910	-.01330	-.00830	.00640	.65230	314.10000	-.00510
2.498	9.390	-0.03590	-.13430	-.01180	-.01700	-.01370	.00880	.65200	314.10000	-.00660
	GRADIENT	.00044	-.02377	-.00341	-.00161	.00083	.00001	-.00023	-.00000	-.00029

RUN NO. 463/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBV
3.001	-4.710	-.02770	.06250	.00980	.00670	-.00080	-.00040	.65010	283.40000	.00150
3.001	-2.676	-.02470	.03110	.00790	.00300	-.00550	.00210	.64830	283.40000	-.00010
3.001	-.632	-.02290	.00460	.00450	-.00010	-.00580	.00290	.64730	283.40000	-.00100
3.001	.379	-.02390	-.00670	.00230	-.00150	-.00480	.00280	.64790	283.40000	-.00140
3.001	1.410	-.02340	-.01920	.00030	-.00300	-.00430	.00280	.64760	283.40000	-.00180
3.001	3.465	-.02560	-.04460	-.00310	-.00620	-.00470	.00360	.64890	283.40000	-.00280
3.001	5.517	-.02900	-.07590	-.00590	-.00930	-.00750	.00510	.65100	283.40000	-.00380
3.001	7.575	-.02610	-.09920	-.00780	-.01330	-.01120	.00740	.64900	283.40000	-.00520
3.001	9.627	-.02570	-.12910	-.00900	-.01790	-.01840	.01010	.64880	283.40000	-.00700
	GRADIENT	.00028	-.01297	-.00163	-.00156	-.00053	.00043	-.00016	.00000	-.00050

RUN NO. 466/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBV
3.496	-4.918	-.02060	.05970	.00750	.00820	.00150	-.00140	.64690	249.20000	.00200
3.496	-2.811	-.02190	.03020	.00580	.00400	-.00290	.00090	.64760	249.20000	.00050
3.496	-.714	-.01870	.00370	.00360	.00020	-.00530	.00250	.64580	249.20000	-.00080
3.496	.338	-.01710	-.00620	.00200	-.00150	-.00480	.00250	.64470	249.20000	-.00110
3.496	1.358	-.01800	-.01800	.00040	-.00320	-.00460	.00270	.64530	249.20000	-.00150
3.496	3.415	-.01740	-.04230	-.00200	-.00570	-.00680	.00410	.64700	249.20000	-.00220
3.496	5.631	-.01700	-.07650	-.00460	-.01150	-.01150	.00570	.64690	249.20000	-.00340
3.496	7.771	-.01720	-.09440	-.00730	-.01320	-.01320	.00740	.64440	249.20000	-.00470
3.496	9.865	-.02130	-.11330	-.00950	-.01740	-.01740	.00960	.64780	249.20000	-.00640
	GRADIENT	.00005	-.01197	-.00116	-.00176	-.00087	.00061	-.00034	.00000	-.00055

ARC 87-747 0453C B C M F W V NOM. RUN/L

(AELG38) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
AILRON = .000 BOFLAP = -11.700  
SPDRK = 85.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 482/ 0 RUN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFCD	CY	CYN	CBL	CVV	CYNV	XCP/L	Q	CBLV
2.498	-0.577	.03250	.00260	-0.00010	-0.00010	.00160	-0.00080	.77950	321.90000	.00030
2.498	-0.597	.03250	.00250	-0.00010	-0.00020	.00090	-0.00050	.81900	321.90000	.00040
2.498	1.422	.02950	.00130	-0.00010	-0.00010	.00030	-0.00030	1.15900	321.90000	.00020
2.498	3.447	.02270	-0.00030	-0.00010	-0.00010	.00010	-0.00020	.43010	321.90000	.00020
2.498	5.475	.01920	-0.00050	-0.00000	-0.00010	.00020	-0.00020	.56160	321.90000	.00020
2.498	7.509	.01640	-0.00070	-0.00030	-0.00010	.00030	-0.00020	.59640	321.90000	.00020
2.498	9.526	.01620	-0.00070	-0.00020	-0.00010	.00050	-0.00030	.60720	321.90000	.00020
2.498	12.590	.01320	-0.00150	-0.00010	-0.00000	.00060	-0.00030	.61950	321.90000	.00040
2.498	15.640	.01170	-0.00030	-0.00040	-0.00010	.00090	-0.00040	.62650	321.90000	.00040
2.498	18.690	.015	.00010	-0.00050	-0.00020	.00040	-0.00020	.63280	321.90000	.00030
2.498	21.750	-0.01700	.00000	-0.00000	-0.00080	.00010	-0.00010	.63640	321.90000	.00020
2.498	24.800	-0.01640	-0.00350	-0.00050	-0.00060	-0.00050	.00010	.64010	321.90000	.00020
2.498	27.350	-0.02670	.00000	-0.00150	-0.00090	-0.00010	.00000	.64330	321.90000	.00020
2.498	GRADIENT	-0.00230	-0.00074	-0.00000	.00001	-0.00033	.00013	-0.07530	.00000	-0.00007

RUN NO. 486/ 0 RUN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFCD	CY	CYN	CBL	CVV	CYNV	XCP/L	Q	CBLV
3.001	-0.605	.01690	.00350	.00020	-0.00010	.00000	-0.00010	.71710	289.40000	.00030
3.001	-0.147	.01830	.00190	.00010	-0.00020	-0.00030	.00000	.72590	289.40000	.00020
3.001	1.366	.01650	.00210	.00000	-0.00020	-0.00110	.00020	.87770	289.40000	.00000
3.001	3.390	.01820	.00040	.00020	-0.00020	-0.00180	.00050	.33030	289.40000	-0.00010
3.001	5.423	.02340	-0.00060	.00010	-0.00020	-0.00150	.00030	.54030	289.40000	-0.00010
3.001	7.438	.01690	-0.00080	.00000	-0.00020	-0.00140	.00040	.58420	289.40000	-0.00010
3.001	9.466	.01620	-0.00080	.00000	-0.00010	-0.00160	.00030	.61100	289.40000	-0.00010
3.001	12.500	.01400	-0.00110	.00000	-0.00010	-0.00140	.00040	.61480	289.40000	.00000
3.001	15.560	.00750	-0.00120	-0.00010	.00000	-0.00100	.00020	.62560	289.40000	.00010
3.001	18.590	.00270	-0.00050	-0.00030	.00020	-0.00130	.00040	.63070	289.40000	.00010
3.001	21.640	-0.00550	-0.00080	-0.00050	.00040	-0.00190	.00060	.63600	289.40000	.00000
3.001	24.690	-0.00980	-0.00090	-0.00070	-0.00050	-0.00190	.00060	.63760	289.40000	.00000
3.001	27.230	-0.01820	-0.00060	-0.00110	-0.00080	-0.00150	.00050	.64070	289.40000	.00000
3.001	GRADIENT	.00014	-0.00062	.00001	-0.00002	-0.00045	.00015	-0.08991	.00000	-0.00010

ARC 67-747 OAS3C B C M F W1 V NOM, RW/L

(AELD38) ( 07 MAR 74 )

## REFERENCE DATA

9407 = 2.4210 SQ.FT. 240P = 32.3010 IN.  
 1407 = 14.2440 IN. 140P = .0000 IN.  
 9407 = 24.1034 IN. 240P = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 65.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 490/ 0 RW/L = 1.75 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	CLMP40	CY	CM	CBL	CMV	CMV	XCP/L	Q	CBLY
3.496	-0.532	.00660	.00490	.00030	-.00010	-.00030	.67340	254.10000	.00030	
3.496	-0.397	.00660	.00350	.00040	.00000	.00000	.67380	254.10000	.00020	
3.496	1.117	.00640	.00330	.00020	-.00020	.00000	.71500	254.10000	.00000	
3.496	3.136	.01160	.00060	.00040	-.00020	.00000	.17420	254.10000	-.00010	
3.496	5.132	.01310	.00040	.00040	-.00020	.00000	.53590	254.10000	-.00010	
3.496	7.178	.01460	-.00020	.00040	-.00020	.00000	.58420	254.10000	-.00020	
3.496	9.203	.01360	-.00070	.00030	-.00030	.00000	.60110	254.10000	-.00020	
3.496	12.230	.01350	-.00060	.00020	-.00030	.00000	.61290	254.10000	-.00020	
3.496	15.260	.00950	-.00060	.00010	-.00020	.00000	.62250	254.10000	-.00010	
3.496	18.300	.00370	-.00180	.00020	-.00020	.00000	.62970	254.10000	-.00020	
3.496	21.340	.00060	-.00110	.00000	-.00020	.00000	.63230	254.10000	-.00030	
3.496	24.390	-.00600	-.00140	-.00020	.00000	.00000	.63600	254.10000	-.00040	
3.496	28.920	-.01470	-.00120	-.00030	.00000	.00000	.63970	254.10000	-.00030	
3.496	GRADIENT	.00067	-.00096	.00001	-.00004	-.00070	-.12134	.00000	-.00010	

ARC 87-747 Q433C B C M F W1 V NOM, RN/L

(AEL399) ( 08 SEP 74 )

## REFERENCE DATA

BMD = 2.4210 90.57, WARP = 32.3010 IN.  
 LMD = 14.2440 IN, WARP = .0000 IN.  
 BMD = 26.1504 IN, WARP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AILRON = .000 ROFLAP = -11.700  
 SPDRK = 85.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 0/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CLAPLO	CY	CYN	CBL	CV	CNV	XCP/L	Q	CBV
2.496	-4.332	.02460	.09660	-.00340	.00400	.03660	-.01810	.78500	317.30000	.01200
2.496	-2.673	.02930	.05840	-.00160	.00220	.02360	-.01090	.81520	317.30000	.00750
2.496	-1.646	.02940	.02050	-.00050	.00060	.01970	-.00450	.80480	317.30000	.00300
2.496	.305	.03090	.00120	.00000	-.00030	.00210	-.00100	.86060	317.30000	.00060
2.496	1.327	.02920	-.01630	.00050	-.00110	-.00380	.00270	.80190	317.30000	-.00170
2.496	3.365	.02870	-.05410	.00250	-.00280	-.00070	.00590	.80350	317.30000	-.00360
2.496	5.430	.02360	-.08100	.00250	-.00440	-.00610	.01670	.77710	317.30000	-.01100
2.496	7.062	.02030	-.12400	.00620	-.00620	-.04680	.02280	.76430	317.30000	-.01470
	GRADIENT	.00044	-.01879	.00064	-.00064	-.00739	.00344	.00229	.00000	-.00230

RUN NO. 0/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CLAPLO	CY	CYN	CBL	CV	CNV	XCP/L	Q	CBV
3.001	-4.626	.01590	.10030	-.00440	.00440	.03480	-.01700	.74130	286.00000	.01110
3.001	-2.608	.01560	.05990	-.00180	.00230	.01980	-.00980	.73920	286.00000	.00660
3.001	-.604	.01810	.02090	-.00040	.00070	.00680	-.00350	.73500	286.00000	.00240
3.001	.398	.01760	.00270	.00020	-.00010	-.00060	.00010	.74220	286.00000	.00020
3.001	3.520	.01670	-.05490	.00250	-.00270	-.00240	.01010	.73730	286.00000	-.00320
3.001	5.602	.01490	-.09290	.00430	-.00440	-.03720	.01730	.72120	286.00000	-.01060
3.001	7.259	.01040	-.11150	.00650	-.00690	-.04870	.02280	.69640	286.00000	-.01410
	GRADIENT	.00016	-.01903	.00082	-.00086	-.00694	.00332	-.00341	-.00000	-.00212

RUN NO. 0/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CLAPLO	CY	CYN	CBL	CV	CNV	XCP/L	Q	CBV
3.496	-4.633	.00360	.09750	-.00460	.00400	.02940	-.01490	.65980	252.30000	.00640
3.496	-2.754	.00950	.05790	-.00250	.00230	.01650	-.00850	.68650	252.30000	.00370
3.496	-.677	.00900	.02150	-.00020	.00070	.00490	-.00270	.68650	252.30000	.00200
3.496	.357	.01080	.00400	.00040	-.00010	-.00060	.00040	.69210	252.30000	.00010
3.496	1.433	.00750	-.01540	.00150	-.00100	-.00060	.00370	.67420	252.30000	-.00170
3.496	3.562	.00690	-.04940	.00310	-.00250	-.00100	.00960	.67980	252.30000	-.00350
3.496	5.725	.00650	-.08740	.00470	-.00420	-.00350	.01620	.67800	252.30000	-.00950
3.496	7.423	.00500	-.11630	.00570	-.00570	-.04470	.02090	.66370	252.30000	-.01240
	GRADIENT	.00036	-.01751	.00093	-.00078	-.00600	.00292	.00156	-.00000	-.00179

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F W Y NOM. RNVL

(AEL040) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. ZREF = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 15.000 ELEVON = .000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 85.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 480/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLO	CY	CYN	CBL	CYV	CYNV	MCP/L	Q	CBLV
2.498	-4.733	.01110	.08310	-.00020	.00680	.02830	-.01390	.61760	320.40000	.00940
2.498	-2.716	.01445	.04860	.00030	.00370	.01830	-.00880	.61260	320.40000	.00620
2.498	-.703	.01470	.01470	.00020	.00100	.00670	-.00330	.61170	320.40000	.00220
2.498	.301	.01297	-.00170	-.00010	-.00080	.00080	-.00040	.61430	320.40000	.00030
2.498	1.309	.01220	-.01570	-.00050	-.00140	-.00050	-.00050	.61550	320.40000	-.00150
2.498	3.326	.01310	-.04920	.00000	-.00420	-.01770	.00850	.61400	320.40000	-.00560
2.498	5.350	.01160	-.08360	.00090	-.00750	-.02940	.01410	.61670	320.40000	-.00930
2.498	7.358	.00860	-.11690	.00110	-.01030	-.03630	.01830	.62110	320.40000	-.01210
2.498	9.282	.00260	-.15440	.00260	-.01430	-.03100	.02520	.62930	320.40000	-.01650
GRADIENT		.00008	-.01636	-.00002	-.00134	-.00572	.00278	-.00021	.00000	-.00186

RUN NO. 484/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLO	CY	CYN	CBL	CYV	CYNV	MCP/L	Q	CBLV
3.001	-4.712	.01045	.08390	-.00090	.00760	.02380	-.01250	.61600	286.00000	.00870
3.001	-2.668	.01340	.04960	-.00050	.00480	.01580	-.00810	.61050	286.00000	.00550
3.001	-.631	.01370	.01830	-.00010	.00130	.00450	-.00250	.60910	286.00000	.00200
3.001	.398	.01470	.00060	.00010	-.00020	.00780	-.00260	.60750	286.00000	.00100
3.001	1.416	.01500	-.01660	.00010	-.00160	-.00690	.00310	.61050	286.00000	-.00170
3.001	3.480	.01390	-.05040	.00080	-.00490	-.01890	.00900	.60940	286.00000	-.00550
3.001	5.518	.00950	-.08080	.00100	-.00780	-.02570	.01310	.61690	286.00000	-.00830
3.001	7.575	.01310	-.11810	.00300	-.01130	-.03940	.01950	.62450	286.00000	-.01250
3.001	9.620	-.00040	-.15080	.00440	-.01640	-.05100	.02510	.63340	286.00000	-.01590
GRADIENT		.00035	-.01635	.00020	-.00154	-.00508	.00259	-.00070	.00000	-.00172

RUN NO. 488/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLO	CY	CYN	CBL	CYV	CYNV	MCP/L	Q	CBLV
3.496	-4.918	.00650	.08370	-.00290	.00870	.02220	-.01210	.62020	252.70000	.00820
3.496	-2.804	.01190	.05020	-.00190	.00320	.01250	-.00690	.60880	252.70000	.00490
3.496	-.690	.01320	.01710	-.00070	.00170	.00240	-.00190	.60640	252.70000	.00170
3.496	.350	.01380	-.00050	.00030	-.00020	-.00330	.00100	.60510	252.70000	-.00020
3.496	1.408	.01400	-.01550	.00110	-.00250	-.00800	.00360	.60370	252.70000	-.00180
3.496	3.533	.01290	-.04870	.00220	-.00570	-.01820	.00870	.60630	252.70000	-.00520
3.496	5.628	.00840	-.07970	.00280	-.00910	-.02860	.01410	.61820	252.70000	-.00860
3.496	7.737	-.00040	-.11240	.00310	-.01220	-.03920	.01930	.63340	252.70000	-.01190
3.496	9.832	-.00040	-.14160	.00240	-.01410	-.04630	.02280	.63340	252.70000	-.01410
GRADIENT		.00073	-.01568	.00063	-.00173	-.00481	.00247	-.00160	-.00000	-.00159

ARC 87-747 0433C B C H M V NOM. RN/L

(AEL041) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. WREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
 ALLRON = .000 BOFLAP = -11.700  
 SPOBRK = 85.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 481/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLD	CY	CYN	CBL	CVV	CYV	MCP/L	Q	CBLV
2.498	-4.732	-.01590	.06530	.05960	.00790	-.00260	-.00060	.64170	321.90000	.00200
2.498	-2.732	-.00390	.03590	.00740	.00390	-.00590	.00140	.63780	321.90000	.00250
2.498	-.719	-.00460	.01090	.00210	.00150	-.00130	.00020	.63540	321.90000	.00050
2.498	.276	-.00420	-.00120	-.00360	.00030	.00020	-.00020	.63520	321.90000	.00030
2.498	1.295	-.00470	-.01330	-.00310	-.00110	.00150	-.00040	.63540	321.90000	-.00010
2.498	3.324	-.00760	-.03290	-.00810	-.00340	.00560	-.00130	.63710	321.90000	-.00020
2.498	5.343	-.01500	-.06470	-.00970	-.00760	.00160	.00130	.64120	321.90000	-.00020
2.498	7.374	-.01950	-.09970	-.00970	-.01280	-.00740	.00570	.64370	321.90000	-.00470
2.498	9.390	-.02360	-.13370	-.01070	-.01750	-.01550	.00960	.64610	321.90000	-.00700
GRADIENT		.00109	-.01216	-.00228	-.00137	.00117	-.00014	-.00061	-.00000	-.00025

RUN NO. 485/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLD	CY	CYN	CBL	CVV	CVV	MCP/L	Q	CBLV
3.001	-4.710	-.01050	.06840	.06660	.00880	.00320	-.00320	.63940	288.20000	.00320
3.001	-2.698	-.00660	.03690	.00570	.00450	-.00310	.00020	.63700	288.20000	.00110
3.001	-.623	-.00220	.01080	.00190	.00170	-.00260	.00070	.63420	288.20000	.00040
3.001	.360	.00000	-.00090	-.00040	.00030	-.00140	.00040	.63270	288.20000	.00000
3.001	1.414	.00020	-.01300	-.00250	-.00110	.00060	.00030	.63260	288.20000	-.00040
3.001	3.475	-.00390	-.03670	-.00640	-.00430	.00010	.00090	.63500	288.20000	-.00120
3.001	5.514	-.01170	-.06660	-.00730	-.00890	.00060	.00410	.64730	288.20000	-.00320
3.001	7.578	-.01340	-.09820	-.00730	-.01340	-.01460	.00430	.64130	288.20000	-.00570
3.001	9.623	-.01550	-.12940	-.00750	-.01860	-.02240	.01200	.64260	288.20000	-.00670
GRADIENT		.00107	-.01273	-.00167	-.00155	-.00021	.00041	-.00069	.00000	-.00051

RUN NO. 489/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFLD	CY	CYN	CBL	CVV	CVV	MCP/L	Q	CBLV
3.496	-4.915	-.00800	.06640	.00430	.01000	.00520	-.00400	.63890	253.80000	.00350
3.496	-2.811	-.00490	.03430	.00390	.00520	-.00140	-.00060	.63620	253.80000	.00140
3.496	-.711	.00120	.00900	.00100	.00150	-.00390	.00120	.63190	253.80000	.00010
3.496	.338	-.00010	-.00150	.00010	-.00020	-.00390	.00100	.63280	253.80000	-.00020
3.496	1.394	.00000	-.01200	-.00160	-.00190	.00230	.00100	.63130	253.80000	-.00060
3.496	3.512	-.00100	-.03640	-.00410	-.00550	-.00440	.00290	.63400	253.80000	-.00190
3.496	5.634	-.00650	-.06320	-.00480	-.01010	-.01140	.00620	.63740	253.80000	-.00450
3.496	7.746	-.00990	-.09360	-.00650	-.01420	-.01720	.00890	.63980	253.80000	-.00580
3.496	9.866	-.00810	-.12320	-.00800	-.01860	-.02390	.01210	.63850	253.80000	-.00780
GRADIENT		.00102	-.01201	-.00103	-.00181	-.00097	.00070	-.00071	.00000	-.00061



(AEL042) (07 MAR 74)

ARC 87-747 ON33C B C M F W V NOM. RN/L

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 10.000  
 AILRON = 5.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 5.000

RUN NO. 410/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-1.567	-0.1380	.00280	-.00120	.00380	.00340	-.00130	.48860	324.90000	.00070
2.499	-1.105	-0.1550	.00250	-.00120	.00370	.00290	-.00110	.24140	324.90000	.00060
2.499	1.422	-0.1960	.00150	-.00160	.00380	.00250	-.00100	.90160	324.90000	.00050
2.499	3.442	-0.2200	.00030	-.00170	.00380	.00210	-.00080	.72780	324.90000	.00040
2.499	5.466	-0.2510	.00090	-.00190	.00430	.00250	-.00090	.69610	324.90000	.00050
2.499	7.497	-0.2810	-.00060	-.00230	.00450	.00240	-.00090	.68080	324.90000	.00050
2.499	9.530	-0.3310	-.00140	-.00260	.00470	.00250	-.00100	.67600	324.90000	.00060
2.499	12.580	-0.3650	.00110	-.00310	.00530	.00280	-.00110	.66710	324.90000	.00060
2.499	15.640	-0.4540	-.00050	-.00360	.00600	.00350	-.00120	.66580	324.90000	.00070
2.499	18.690	-0.5280	.00250	-.00410	.00680	.00250	.00090	.66390	324.90000	.00060
2.499	21.740	-0.6260	.00260	-.00460	.00760	.00170	-.00060	.66340	324.90000	.00040
2.499	24.850	-0.7600	.00280	-.00540	.00850	.00230	-.00080	.66450	324.90000	.00060
2.499	27.340	-0.8470	.00390	-.00630	.00940	.00320	-.00110	.66410	324.90000	.00060
GRADIENT		-.00202	-.00062	-.00014	.00001	-.00029	.00011	.10319	.00000	-.00007

RUN NO. 411/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.002	-1.609	-0.1900	.00200	-.00060	.00290	.00270	-.00100	.41410	291.50000	.00070
3.002	-1.151	-0.1870	.00250	-.00080	.00290	.00250	-.00100	.37900	291.50000	.00060
3.002	1.369	-0.1740	.00070	-.00080	.00300	.00200	-.00080	2.44300	291.50000	.00040
3.002	3.386	-0.1970	.00140	-.00110	.00330	.00180	-.00070	.76820	291.50000	.00030
3.002	5.414	-0.2050	.00010	-.00140	.00360	.00200	-.00070	.71180	291.50000	.00040
3.002	7.435	-0.2370	-.00050	-.00170	.00380	.00180	-.00070	.68570	291.50000	.00040
3.002	9.465	-0.2630	-.00260	-.00210	.00420	.00200	-.00070	.67350	291.50000	.00040
3.002	12.500	-0.3040	-.00050	-.00240	.00490	.00210	-.00080	.66630	291.50000	.00050
3.002	15.540	-0.3490	.00090	-.00290	.00580	.00240	-.00090	.66170	291.50000	.00060
3.002	18.590	-0.4490	.00250	-.00370	.00660	.00190	-.00070	.66260	291.50000	.00050
3.002	21.640	-0.5150	.00120	-.00430	.00740	.00170	-.00060	.66100	291.50000	.00040
3.002	24.690	-0.6360	-.00060	-.00500	.00820	.00180	-.00060	.66210	291.50000	.00040
3.002	27.230	-0.7210	.00280	-.00580	.00910	.00190	-.00070	.66210	291.50000	.00050
GRADIENT		-.00015	-.00026	-.00011	.00010	-.00022	.00006	.16801	.00000	-.00010



TABULATED SOURCE DATA - QAS3C

DATE 15-JUN 74

(AEL042) (07 MAR 74)

ARC 87-747 QAS3C B C M F M V NOM. RN/L

REFERENCE DATA:

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN. ELEVON = 10.000  
 LREF = 14.2440 IN. YMRP = .0510 IN. BDFLAP = -11.700  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN. SPDRK = .000  
 SCALE = .0000 SCALE ELEV-L = 15.000 ELEV-R = 5.000

PARAMETRIC DATA

RUN NO. 412/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFAD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.498	-857	-02240	.00320	-00020	.00230	.00320	-00120	.45180	255.00000	.00080
3.498	-392	-02130	.00120	-00030	.00230	.00260	-00100	.43970	255.00000	.00060
3.498	1.119	-02020	.00060	-00040	.00250	.00170	-00080	-1.71200	255.00000	.00050
3.498	3.137	-02050	-00030	-00060	.00270	.00160	-00060	.83340	255.00000	.00040
3.498	5.153	-01790	-00010	-00090	.00300	.00150	-00050	.71020	255.00000	.00040
3.498	7.169	-02090	.00040	-00110	.00340	.00130	-00050	.68490	255.00000	.00040
3.498	9.202	-02180	.00000	-00140	.00360	.00120	-00050	.67270	255.00000	.00040
3.498	12.220	-02490	.00040	-00190	.00440	.00110	-00050	.66430	255.00000	.00040
3.498	15.260	-03030	.00090	-00250	.00520	.00130	-00050	.66140	255.00000	.00050
3.498	18.310	-04000	.00040	-00310	.00600	.00090	-00030	.66200	255.00000	.00040
3.498	21.350	-04320	.00140	-00350	.00670	.00120	-00040	.65880	255.00000	.00040
3.498	24.390	-05080	.00020	-00440	.00760	.00000	.00000	.65820	255.00000	.00010
3.498	26.920	-05990	.00070	-00480	.00830	.00010	.00000	.65910	255.00000	.00020
3.498	GRADIENT	.00042	-00072	-00009	.00011	-00038	.00014	.01329	.00000	-0.00009

ARC 87-747 0453C B C M F W V NOM. RN/L

(AEL943) ( 07 MAR 74 )

## REFERENCE DATA

SPEF = 2.4215 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AIRRON = 15.000 BOFLAP = -11.750  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = -15.000

RUN NO. 413/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-0.572	.00390	.00450	.00010	.01110	.00340	-.00140	.65400	324.50000	.00080
2.499	-1.108	.00210	.00440	-.00020	.01100	.00290	-.00120	.64790	324.50000	.00070
2.499	1.411	-.00060	.00360	-.00060	.01110	.00230	-.00090	.59590	324.50000	.00050
2.499	3.430	-.00510	.00320	-.00110	.01110	.00200	-.00080	.66830	324.50000	.00040
2.499	5.466	-.00860	.00330	-.00180	.01140	.00210	-.00080	.65930	324.50000	.00050
2.499	7.492	-.01240	.00360	-.00240	.01160	.00240	-.00090	.65740	324.50000	.00050
2.499	9.527	-.01450	-.00280	-.00290	.01290	.00240	-.00090	.65380	324.50000	.00050
2.499	12.570	-.01750	.00200	-.00380	.01290	.00280	-.00100	.65050	324.50000	.00070
2.499	15.630	-.02500	.00420	-.00460	.01400	.00300	-.00110	.65200	324.50000	.00060
2.499	19.690	-.03080	.00540	-.00550	.01530	.00220	-.00080	.65180	324.50000	.00050
2.499	21.730	-.03910	.00660	-.00620	.01560	.00140	-.00050	.65290	324.50000	.00040
2.499	24.800	-.04780	.00650	-.00730	.01850	.00190	-.00070	.65370	324.50000	.00050
2.499	27.340	-.05720	.00740	-.00840	.01990	.00280	-.00090	.65490	324.50000	.00060
GRADIENT		-.00216	-.00034	-.00028	.00001	-.00032	.00014	.00129	.00000	-.00010

RUN NO. 414/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-0.612	-.01020	.00380	.00020	.00820	.00240	-.00090	.56640	291.20000	.00070
3.001	-1.104	-.00690	.00350	.00010	.00820	.00200	-.00080	.58040	291.20000	.00060
3.001	1.358	-.00650	.00150	-.00030	.00830	.00160	-.00060	.52830	291.20000	.00040
3.001	3.422	-.01050	.00230	-.00070	.00840	.00100	-.00040	.73710	291.20000	.00030
3.001	5.399	-.01020	.00270	-.00120	.00880	.00150	-.00050	.67280	291.20000	.00040
3.001	7.433	-.01070	.00170	-.00180	.00920	.00210	-.00070	.65900	291.20000	.00050
3.001	9.447	-.01220	.00290	-.00220	.00970	.00160	-.00060	.65620	291.20000	.00040
3.001	12.510	-.01530	.00220	-.00300	.01080	.00160	-.00060	.65090	291.20000	.00050
3.001	15.580	-.02080	-.00050	-.00350	.00230	.00230	-.00080	.65130	291.20000	.00050
3.001	18.570	-.02820	.00430	-.00480	.01390	.00160	-.00060	.65250	291.20000	.00050
3.001	21.640	-.03190	.00600	-.00560	.01560	.00130	-.00040	.65110	291.20000	.00040
3.001	24.730	-.03940	.00670	-.00660	.01730	.00150	-.00050	.65190	291.20000	.00040
3.001	27.280	-.04520	.00520	-.00780	.01870	.00150	-.00050	.65190	291.20000	.00050
GRADIENT		-.00032	-.00041	-.00023	.00005	-.00033	.00012	.00894	.00000	-.00010

DATE 15 JUL 74

TABULATED SOURCE DATA - 0433C

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ARC 07-747 0433C B C M F M V NOM. RV/L

(AEL043) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0350 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AILRON = 15.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = -15.000

RUN NO. 415/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMP/D	CY	CYN	CB/L	CYV	CYV	XCP/L	Q	CB/LV
3.498	-0.862	-0.01240	.00290	.00060	.00650	.. 220	-.00080	.56800	255.80000	.00070
3.498	-0.374	-0.01260	.00240	.00050	.00660	.00210	-.00080	.56440	255.80000	.00060
3.493	1.100	-0.01260	.00000	.00000	.00660	.00100	-.00050	.47690	255.80000	.00040
3.498	3.136	-0.01190	.00070	-.00030	.00670	.00050	-.00030	.91500	255.80000	.00030
3.498	5.150	-0.00860	-.00020	-.00080	.00700	.00060	-.00030	.68160	255.80000	.00040
3.498	7.191	-0.01150	.00190	-.00110	.00760	.00060	-.00030	.66800	255.80000	.00030
3.498	9.158	-0.01240	.00110	-.00160	.00820	.01630	-.00040	.65930	255.80000	.00200
3.498	12.180	-0.01460	.00090	-.00240	.00940	.00030	-.00020	.65310	255.80000	.00030
3.498	15.250	-0.01730	.00110	-.00310	.01090	.00070	-.00030	.65040	255.80000	.00040
3.498	18.310	-0.02180	-.00620	-.00400	.01240	.00000	.00000	.64990	255.80000	.00030
3.498	21.340	-.02660	.00110	-.00470	.01400	.00030	-.00010	.64970	255.80000	.00030
3.498	24.370	-.02890	.00330	-.00570	.01580	-.00060	.00020	.64820	255.80000	.00010
3.498	26.970	-.02990	.00400	-.00640	.01730	-.00040	-.00010	.66450	255.80000	.00020
	GRADIENT	.00014	-.00059	-.00023	.00004	-.00045	.00013	.08254	.00000	-.00010



DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 67-747 0453C B C M F W V NOM. RV/L

(AELG44) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2445 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
 AIRRON = 15.000 BCFUP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 5.000 ELEV-R = -25.000

RUN NO. 526/ 5 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYW	XCP/L	Q	CBLV
2.499	-1.507	.02310	.00260	.00370	.01080	.00260	-.00100	.73900	320.30000	.00060
2.499	1.183	.02080	.00220	.00350	.01060	.00230	-.00090	.74980	320.30000	.00060
2.499	1.202	.01900	.00140	.00320	.01040	.00200	-.00090	.81920	320.30000	.00050
2.499	3.234	.01280	.00090	.00280	.01010	.00120	-.00050	.45550	320.30000	.00030
2.499	5.254	.00720	.00060	.00190	.00990	.00140	-.00050	.60320	320.30000	.00030
2.499	7.289	.00430	.00070	.00140	.00980	.00170	-.00060	.62230	320.30000	.00030
2.499	9.311	.00430	.00150	.00150	.00980	.00170	-.00070	.62560	320.30000	.00040
2.499	12.360	.00270	.00170	.00200	.01000	.00170	-.00070	.62970	320.30000	.00050
2.499	15.420	-.00430	.00260	-.00040	.01050	.00260	-.00090	.63630	320.30000	.00050
2.499	18.460	-.00750	.00320	-.00100	.01090	.00320	-.00060	.63760	320.30000	.00040
2.499	21.520	-.01320	.00440	-.00190	.01180	.00030	-.00020	.63990	320.30000	.00030
2.499	24.530	-.01840	.00520	-.00240	.01310	.00070	-.00030	.64130	320.30000	.00040
2.499	27.450	-.02240	.00580	-.00310	.01420	.00140	-.00040	.64250	320.30000	.00040
GRADIENT		-.00270	-.00045	-.00024	-.00018	-.00036	.00013	-.07790	.00000	-.00009

RUN NO. 527/ 5 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CYV	CYW	XCP/L	Q	CBLV
3.001	-1.580	.00570	.00290	.00310	.00830	.00140	-.00080	.56070	287.80000	.00050
3.001	1.142	.00530	.00280	.00290	.00810	.00120	-.00050	.66580	287.80000	.00050
3.001	1.162	.00500	.00190	.00270	.00790	.00020	-.00020	.68450	287.80000	.00030
3.001	3.180	.00650	.00120	.00020	.00770	-.00020	.00000	.45520	287.80000	.00010
3.001	5.203	.00350	.00070	.00170	.00750	.00000	.00000	.61290	287.80000	.00010
3.001	7.218	.00210	.00050	.00120	.00740	.00080	-.00030	.62660	287.80000	.00020
3.001	9.252	.00390	.00100	.00070	.00740	.00040	-.00020	.62500	287.80000	.00020
3.001	12.280	.00150	.00100	.00030	.00770	.00010	-.00010	.63080	287.80000	.00030
3.001	15.330	-.00170	.00200	-.00030	.00840	.00040	-.00020	.63440	287.80000	.00030
3.001	18.380	-.00620	.00290	-.00090	.00930	-.00010	.00000	.63740	287.80000	.00030
3.001	21.420	-.00830	.00410	-.00150	.01040	-.00040	.00010	.63780	287.80000	.00020
3.001	24.470	-.01080	.00430	-.00200	.01150	-.00040	.00010	.63830	287.80000	.00020
3.001	27.330	-.01580	.00500	-.00270	.01270	.00060	-.00020	.63970	287.80000	.00030
GRADIENT		.00025	-.00048	-.00024	-.00015	-.00045	.00016	-.05636	.00000	-.00011

DATE 15 JUL 74

TABULATED SOURCE DATA - Q453C

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ARC 87-747 Q453C B C M F W V NOM. RN/L

(AEL044) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.  
LREF = 14.2440 IN.  
BREF = 28.1004 IN.  
SCALE = .0300 SCALE

YMRP = 32.3010 IN.  
ZMRP = .0000 IN.  
YMRP = 11.2500 IN.

## PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
AILRON = 15.000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = 5.000 ELEV-R = -25.000

RUN NO. 528/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF10	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-1.795	-.00280	.00430	.00280	.00690	.00200	-.00080	.61830	252.50000	.00060
3.496	-.098	-.00010	.00450	.00270	.00670	.00120	-.00050	.63330	252.50000	.00050
3.496	.905	.00050	.00350	.00240	.00650	.00040	-.00030	.63700	252.50000	.00030
3.496	2.926	.00090	.00160	.00210	.00600	-.00060	.00010	.54070	252.50000	.00020
3.496	4.947	.00010	.00130	.00150	.00580	-.00020	.00000	.63210	252.50000	.00020
3.496	6.960	.00010	.00110	.00120	.00570	-.00040	.00010	.63250	252.50000	.00020
3.496	8.987	-.00020	.00160	.00100	.00580	-.00080	.00020	.63320	252.50000	.00010
3.496	12.020	-.00340	.00120	.00050	.00620	-.00080	.00020	.63780	252.50000	.00020
3.496	15.050	-.00440	.00190	.00050	.00690	-.00130	.00040	.63740	252.50000	.00020
3.496	18.090	-.00220	.00230	-.00050	.00780	-.00130	.00040	.63460	252.50000	.00020
3.496	21.120	-.00380	.00360	-.00090	.00870	-.00140	.00040	.63530	252.50000	.00010
3.496	24.170	-.00590	.00460	-.00140	.00960	-.00140	.00050	.6360	252.50000	.00000
3.496	27.060	-.01000	.00420	-.00210	.01060	-.00110	.00030	.63750	252.50000	.00010
	GRADIENT	.00035	-.00061	-.00023	-.00020	-.00039	.00014	-.00435	-.00000	-.00007

ARC 87-747 0453C B C H F W V NOM. RV/L

(AEL045) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
AILRON = 5.000 BOFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -15.000 ELEV-R = -25.000

RUN NO. 500/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CVV	CYV	CYNV	XP/L	3	CBLV
2.498	-1.570	.54410	-.00070	.00240	.00320	.00350	.00130	-.00130	.78150	315.00000	.00070
2.498	.122	.04120	-.00190	.00250	-.00220	.00350	-.00130	-.00130	.79220	315.00000	.00070
2.498	1.141	.03840	-.00140	.00220	.00300	.00350	-.00110	-.00110	.85130	315.00000	.00060
2.498	5.163	.03360	-.00260	.00220	.00290	.00250	-.00090	-.00090	3.23100	315.00000	.00050
2.498	5.185	.02950	-.00380	.00180	.00270	.00260	-.00090	-.00090	.43620	315.00000	.00040
2.498	7.217	.02560	-.00240	.00160	.00260	.00290	-.00100	-.00100	.55610	315.00000	.00050
2.498	9.245	.02630	-.00250	.00150	.00250	.00260	-.00100	-.00100	.58140	315.00000	.00050
2.498	12.300	.02300	-.00240	.00110	.00240	.00310	-.00120	-.00120	.60430	315.00000	.00070
2.498	15.350	.02090	-.00200	.00080	.00240	.00350	-.00120	-.00120	.61390	315.00000	.00050
2.498	18.400	.01750	-.00190	.00060	.00250	.00240	-.00090	-.00090	.62030	315.00000	.00050
2.498	21.450	.01490	-.00180	.00010	.00260	.00160	-.00050	-.00050	.62410	315.00000	.00040
2.498	24.510	.01170	-.00130	-.00010	.00280	.00140	-.00050	-.00050	.62700	315.00000	.00040
2.498	27.360	.00850	-.00110	-.00060	.00320	.00200	-.00070	-.00070	.62910	315.00000	.00050
GRADIENT		-.00270	-.00042	-.00007	.00049	-.00029	.00012	.00012	.67972	.00000	-.00006

RUN NO. 501/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFD	CY	CYN	CBL	CVV	CYV	CYNV	XP/L	Q	CBLV
3.000	-1.612	.52450	-.00020	.00240	.00270	.00300	-.00110	-.00110	.72770	284.20000	.00070
3.000	.080	.02290	-.00050	.00220	.00260	.00270	-.00100	-.00100	.73520	284.20000	.00060
3.000	1.095	.02010	-.00160	.00210	.00250	.00220	-.00090	-.00090	.76000	284.20000	.00050
3.000	3.111	.02130	-.00220	.00190	.00240	.00200	-.00070	-.00070	1.94300	284.20000	.00040
3.000	5.132	.01870	-.00290	.00170	.00220	.00200	-.00070	-.00070	.48980	284.20000	.00040
3.000	7.157	.01840	-.00310	.00160	.00210	.00240	-.00080	-.00080	.56510	284.20000	.00050
3.000	9.178	.01950	-.00300	.00140	.00200	.00200	-.00070	-.00070	.58710	284.20000	.00040
3.000	12.220	.01770	-.00300	.00100	.00180	.00170	-.00070	-.00070	.60730	284.20000	.00050
3.000	15.260	.01720	-.00220	.00080	.00190	.00190	-.00070	-.00070	.61500	284.20000	.00050
3.000	18.310	.01740	-.00280	.00050	.00200	.00140	-.00050	-.00050	.61860	284.20000	.00050
3.000	21.350	.01550	-.00240	.00030	.00220	.00100	-.00040	-.00040	.62250	284.20000	.00040
3.000	24.400	.01460	-.00230	.00000	.00230	.00060	-.00020	-.00020	.62480	284.20000	.00030
3.000	27.270	.01280	-.00210	-.00040	.00270	.00120	-.00050	-.00050	.62670	284.20000	.00040
GRADIENT		-.00082	-.00056	-.00012	-.00008	-.00026	.00011	.00011	.33788	.00000	-.00008

ARC 87-747 0453C B C M F W V NOM. RN/L

(AEL045) ( 07 MAR 74 )

## REFERENCE DATA

SEEF = 2.4210 SQ.FT. ZMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 26.1054 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AIRCON = 5.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -15.000 ELEV-R = -25.000

RUN NO. 502/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-0.878	.01150	.00080	.00230	.00260	.00290	-.00110	.67670	248.10000	.00080
3.496	-1.165	.01190	.00050	.00220	.00250	.00230	-.00090	.68320	248.10000	.00060
3.496	.845	.01260	-.00020	.00210	.00230	.00120	-.00050	.71060	248.10000	.00050
3.496	2.861	.01080	-.00190	.00190	.00200	.00090	-.00040	.90160	248.10000	.00040
3.496	4.875	.01300	-.00230	.00170	.00180	.00050	-.00020	.47310	248.10000	.00030
3.496	6.896	.01180	-.00200	.00150	.00160	.00030	-.00020	.57850	248.10000	.00030
3.496	8.918	.01410	-.00300	.00140	.00150	.00040	-.00020	.59690	248.10000	.00040
3.496	11.950	.01320	-.00270	.00110	.00140	.00040	-.00020	.61110	248.10000	.00040
3.496	14.980	.01620	-.00230	.00090	.00130	.00040	-.00020	.61390	248.10000	.00040
3.496	18.020	.01690	-.00390	.00080	.00130	-.00020	.00030	.61760	248.10000	.00030
3.496	21.060	.01600	-.00370	.00070	.00140	-.00010	.00030	.62130	248.10000	.00020
3.496	24.100	.01650	-.00330	.00050	.00150	-.00050	.00020	.62300	248.10000	.00020
3.496	26.940	.01990	-.00310	.00020	.00180	-.00060	.00010	.62270	248.10000	.00020
3.496	GRADIENT	.00012	-.00059	-.00010	-.00014	-.00039	.00015	-.01876	.00000	-.00008



ARC 87-747 OA53C B C M F W V NOM. RN/L

(AEL046) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BRP = 25.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 85.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 431/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.498	-4.645	.02190	.08690	.00130	.00150	.03350	-.01460	.79860	320.60000	.00960
2.498	-2.672	.02410	.05050	.00330	-.00040	.01810	-.00740	.81140	320.60000	.00510
2.498	.297	.02950	-.00490	.00420	-.00260	-.00280	.00240	.87190	320.60000	-.00160
2.498	3.374	.02750	-.05840	.00530	-.00490	-.02420	.01230	.81360	320.60000	-.00830
2.498	5.430	.02500	-.09910	.00700	-.00660	-.03890	.01890	.79630	320.60000	-.01260
2.498	7.121	.02330	-.13570	.00910	-.00810	-.03230	.02530	.79780	320.60000	-.01650
	GRADIENT	.00080	-.01816	.00046	-.00079	-.00716	.00334	.00353	-.00000	-.00223

RUN NO. 434/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-4.629	.05670	.09260	.00000	.00200	.03230	-.01440	.68800	290.80000	.00900
3.001	-2.617	.01240	.05370	.00230	.00010	.01760	-.00740	.71630	290.80000	.00460
3.001	.404	.01660	-.00260	.00400	-.00220	-.00220	.00210	.74530	290.80000	-.00150
3.001	3.521	.01700	-.05810	.00610	-.00470	-.02330	.01210	.74520	290.80000	-.00780
3.001	5.604	.01470	-.09590	.00810	-.00660	-.03830	.01920	.73170	290.80000	-.01220
3.001	7.169	.01320	-.12500	.00960	-.00780	-.04890	.02410	.71690	290.80000	-.01530
	GRADIENT	.00123	-.01848	.00072	-.00081	-.00678	.00323	.00707	-.00000	-.00205

RUN NO. 437/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-4.834	.00170	.09140	-.00060	.00190	.02840	-.01280	.64660	253.00000	.00790
3.496	-2.760	.00460	.05400	.00140	.00030	.01600	-.00680	.66480	253.00000	.00410
3.496	.355	.00650	-.00130	.00400	-.00210	-.00130	.00180	.67320	253.00000	-.00130
3.496	3.571	.00660	-.05630	.00680	-.00460	-.02110	.01110	.67510	253.00000	-.00700
3.496	5.714	.00840	-.09300	.00840	-.00630	-.03490	.01770	.68570	253.00000	-.01090
3.496	7.453	.01130	-.08560	.00420	-.00700	-.04490	.02260	.70040	253.00000	-.01400
	GRADIENT	.00055	-.01758	.00087	-.00077	-.00585	.00283	.00317	.00000	-.00177



ARC 07-747 Q453C B C M F W V NDN. RN/L

(AEL047) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.  
 LREF = 14.2440 IN.  
 BREF = 20.1004 IN.  
 SCALE = .0300 SCALE

WREF = 32.3010 IN.  
 YREF = .0000 IN.  
 ZREF = 11.2500 IN.

ALPHA = 10.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDPRK = 85.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 432/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWO	CY	CYN	CBL	CYV	CYNV	WCP/L	Q	CBLV
2.498	-4.738	.00640	.07770	.00380	.00460	.02530	-.01140	.62430	320.20000	.00760
2.498	-2.724	.01140	.04290	.00430	.00150	.01560	-.00640	.61740	320.20000	.00420
2.498	.299	.01150	-.00570	.00360	-.00220	-.00240	-.00220	.61670	320.20000	-.00150
2.498	3.328	.01050	-.05330	.00260	-.00570	-.01930	.01030	.61860	320.20000	-.00690
2.498	5.344	.01140	-.09190	.00340	-.00910	-.03120	.01590	.61740	320.20000	-.01060
2.498	7.353	.01100	-.12030	.00350	-.01190	-.03780	.01990	.61820	320.20000	-.01330
2.498	9.375	.00330	-.15810	.00470	-.01570	-.05120	.02630	.62840	320.20000	-.01750
	GRADIENT	.00641	-.01620	-.00017	-.00126	-.00559	.00271	-.00058	-.00000	-.00181

RUN NO. 435/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWO	CY	CYN	CBL	CYV	CYNV	WCP/L	Q	CBLV
3.001	-4.720	.00660	.07760	.00280	.00560	.02240	-.01050	.62210	291.80000	.00720
3.001	-2.676	.00600	.04540	.00310	.00270	.01410	-.00610	.61960	291.80000	.00390
3.001	.394	.01430	-.00560	.00350	-.00200	-.00250	.00220	.60890	291.80000	-.00140
3.001	3.463	.01360	-.05430	.00400	-.00660	-.01950	.01050	.61060	291.80000	-.00680
3.001	5.511	.00950	-.08440	.00390	-.00940	-.02590	.01430	.61740	291.80000	-.00940
3.001	7.562	.00510	-.12000	.00550	-.01270	-.03890	.02040	.62470	291.80000	-.01350
3.001	9.607	.00200	-.15250	.00630	-.01590	-.04870	.02310	.62960	291.80000	-.01640
	GRADIENT	.00098	-.01618	.00014	-.00153	-.00518	.00259	-.00162	.00000	-.00172

RUN NO. 438/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWO	CY	CYN	CBL	CYV	CYNV	WCP/L	Q	CBLV
3.496	-4.917	.00310	.07900	.00070	.00700	.02220	-.01060	.62720	254.70000	.00700
3.496	-2.809	.00930	.04540	.00170	.00320	.01290	-.00530	.61530	254.70000	.00360
3.496	.352	.01210	-.00360	.00360	-.00200	-.00300	.00230	.60990	254.70000	-.00140
3.496	3.519	.01390	-.05330	.00530	-.00740	-.01750	.00980	.60560	254.70000	-.0061
3.496	5.634	.00940	-.08480	.00580	-.01070	-.02720	.01500	.61480	254.70000	-.00960
3.496	7.739	.00620	-.11450	.00540	-.01340	-.03700	.01950	.62100	254.70000	-.01250
3.496	9.832	.00420	-.14410	.00420	-.01510	-.04330	.02240	.62460	254.70000	-.01440
	GRADIENT	.00119	-.01566	.00055	-.00170	-.00471	.00241	-.00239	.00000	-.00158

ARC 87-747 QAS3C B C M F W V NOM. RN/L (UCL048) (07 MAR 74)

REFERENCE DATA

SKEF = 2.4215 SQ.FT.  
 LREF = 14.2440 IN.  
 BREF = 28.1504 IN.  
 SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHA = 20.000  
 AILRON = .000  
 SPOBER = 85.000  
 ELEV-L = .000  
 ELEVON = .000  
 BDFLAP = -11.700  
 RUDDER = -10.000  
 ELEV-R = .000

RUN NO. 433/ 0 RN/L = 1.72 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.498	-4.737	-0.01955	.06260	.01250	.00640	-.00380	.00060	.64330	320.20000	.00080
2.498	-2.733	-0.01010	.03080	.01030	.00220	-.00700	.00290	.63850	320.20000	-.00080
2.498	.284	-.00850	-.00710	.00290	-.00180	-.00250	.00220	.63750	320.20000	-.00150
2.498	3.324	-.00920	-.03950	-.00320	-.00510	.00440	.00020	.63790	320.20000	-.00150
2.498	5.345	-.01600	-.06690	-.00800	-.00870	.01660	-.00170	.64170	320.20000	-.00100
2.498	7.374	-.02130	-.10200	-.00870	-.01360	.00560	.00560	.64460	320.20000	-.00510
2.458	9.390	-.02070	-.13500	-.01070	-.01750	-.01290	.00890	.64430	320.20000	-.00700
	GRADIENT	.00106	-.01257	-.00225	-.00140	.00114	-.00510	-.00059	-.00000	-.00027

RUN NO. 436/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-4.711	-0.01660	.06470	.00850	.00770	.00430	-.00280	.64320	291.30000	.00250
3.001	-2.674	-.00660	.03300	.00830	.00310	-.00280	.00120	.63690	291.30000	.00010
3.001	.376	-.00410	-.00630	.00240	-.00130	-.00120	.00160	.63540	291.30000	-.00110
3.001	3.465	-.00780	-.03960	-.00400	-.00540	.00120	.00130	.63770	291.30000	-.00190
3.001	5.518	-.01170	-.07000	-.00590	-.00940	.00360	.00390	.64010	291.30000	-.00350
3.001	7.572	-.01670	-.09930	-.00630	-.01410	-.01090	.00750	.64320	291.30000	-.00570
3.001	9.633	-.01580	-.13040	-.00700	-.01900	-.01790	.01080	.64270	291.30000	-.00780
	GRADIENT	.00094	-.01269	-.00161	-.00157	-.00020	.00042	-.00059	.00000	-.00051

RUN NO. 439/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-4.916	-0.01290	.06520	.00630	.00920	.00820	-.00430	.64170	254.70000	.00320
3.496	-2.816	-.00720	.03270	.00610	.00400	-.00080	-.00040	.63780	254.70000	.00080
3.496	.334	-.00210	-.00350	.00220	-.00130	-.00090	.00120	.63420	254.70000	-.00080
3.496	3.508	-.00620	-.03810	-.00230	-.00640	-.00170	.00230	.63710	254.70000	-.00220
3.496	5.630	-.00630	-.06670	-.00350	-.01080	.00760	.00540	.63710	254.70000	-.00410
3.496	7.750	-.00620	-.09590	-.00380	-.01460	.00760	.00760	.63710	254.70000	-.00560
3.496	9.868	-.00910	-.12230	-.00740	-.01830	-.01790	.01040	.63920	254.70000	-.00730
	GRADIENT	.00083	-.01210	-.00107	-.00182	-.00105	.00073	-.00057	.00000	-.00061

ARC 87-747 QAS3C B C M F W V MON. RN/L SEAL-EL

(AEL049)

( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. ZREF = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .0' 0 ELEVON = 15.000  
AILRON = .0' 0 BDFLAP = 16.300  
SPDRK = 55.000 RUDDER = .0000  
ELEV-L = 15.000 ELEV-R = 15.000

PARAMETRIC DATA

RUN NO. 520/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF/D	CY	CYN	CBL	CYV	CYNV	ACP/L	Q	CBLV
2.498	-.934	-.04160	.00120	.00010	-.00020	.00330	-.00120	-1.86300	319.90000	.00070
2.498	.184	-.04620	.00140	.00000	-.00010	.00300	-.00120	1.93700	319.90000	.00060
2.498	1.200	-.04900	.00060	.00000	-.00010	.00250	-.00100	1.05600	319.90000	.00050
2.498	3.224	-.05240	-.00010	.00000	-.00020	.00170	-.00070	.81720	319.90000	.00040
2.498	5.256	-.06020	-.00110	.00000	-.00010	.00190	-.00070	.76380	319.90000	.00030
2.498	7.277	-.06700	-.00050	-.00010	-.00010	.00190	-.00070	.73730	319.90000	.00030
2.498	9.307	-.07240	.00000	-.00020	-.00020	.00240	-.00070	.71970	319.90000	.00040
2.498	12.350	-.08130	.00050	-.00040	-.00010	.00290	-.00090	.70410	319.90000	.00050
2.498	15.400	-.09160	.00080	-.00060	.00010	.00290	-.00100	.69520	319.90000	.00060
2.498	18.460	-.10480	.00040	-.00060	.00020	.00200	-.00070	.69090	319.90000	.00050
2.498	21.520	-.11910	.00120	-.00090	.00060	.00100	-.00030	.68820	319.90000	.00030
2.498	24.570	-.13610	.00080	-.00120	.00080	.00180	-.00060	.68690	319.90000	.00040
2.498	27.450	-.15310	.00160	-.00180	.00120	.00230	-.00080	.68600	319.90000	.00050
GRADIENT		-.00266	-.00039	-.00002	-.00001	-.00043	.00014	.40871	.00000	-.00008

RUN NO. 521/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMF/D	CY	CYN	CBL	CYV	CYNV	ACP/L	Q	CBLV
3.001	-.577	-.04540	.00180	.00010	.00000	.00160	-.00070	-1.10940	286.50000	.00060
3.001	.142	-.04240	.00130	.00020	.00000	.00130	-.00060	-1.09800	286.50000	.00050
3.001	1.150	-.04590	.00100	.00010	.00000	.00160	-.00040	1.52700	286.50000	.00030
3.001	3.170	-.04450	-.00100	.00020	.00000	-.00010	-.00010	.87460	286.50000	.00020
3.001	5.199	-.04680	-.00040	.00010	-.00010	.00030	-.00010	.76980	286.50000	.00020
3.001	7.221	-.05120	-.00050	.00000	-.00010	.00040	-.00020	.73280	286.50000	.00020
3.001	9.243	-.05660	-.00060	.00000	-.00010	.00000	-.00010	.71480	286.50000	.00020
3.001	12.280	-.06590	-.00010	-.00010	-.00010	.00000	-.00010	.70030	286.50000	.00030
3.001	15.330	-.07850	.00050	-.00030	.00010	.00080	-.00030	.69540	286.50000	.00040
3.001	18.370	-.09370	.00090	-.00050	.00010	.00010	-.00010	.69170	286.50000	.00030
3.001	21.410	-.10590	.00120	-.00090	.00030	.00020	-.00010	.68820	286.50000	.00030
3.001	24.470	-.12160	.00080	-.00110	.00070	-.00010	-.00010	.68630	286.50000	.00020
3.001	27.370	-.13350	.00120	-.00150	.00100	.00020	-.00010	.68370	286.50000	.00030
GRADIENT		-.00105	-.00074	.00002	.00000	-.00046	.00016	.41198	.00000	-.00011

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C W F M V NOM. RN/L SEAL EL

(AELD49) '77 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. WREF = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 20.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEWON = 15.000  
AILRON = .000 BDFLAP = 16.300  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = 15.000 ELEV-R = 15.000

PARAMETRIC DATA

RUN NO. 522/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMP/D	CY	CYN	CL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-7.97	-0.3960	.00290	.00030	-.00010	.00300	-.00100	.20070	252.00000	.00070
3.496	-1.07	-0.3660	.00200	.00040	-.00010	.00240	-.00090	.03660	252.00000	.00060
3.496	.911	-0.3920	.00200	.00040	-.00010	.00180	-.00070	-4.86900	252.00000	.00050
3.496	2.918	-0.4040	.00020	.00040	-.00020	.00110	-.00040	.93430	252.00000	.00040
3.496	4.940	-0.3160	-.00040	.00030	-.00020	.00030	-.00020	.76290	252.00000	.00030
3.496	6.961	-0.4610	-.00030	.00030	-.00040	.00060	-.00020	.74140	252.00000	.00030
3.496	8.994	-0.5010	-.00040	.00040	-.00030	.00020	-.00010	.71780	252.00000	.00020
3.496	12.510	-0.6100	-.00030	.00030	-.00030	.00010	-.00010	.70580	252.00000	.00030
3.496	15.050	-0.7000	.00030	.00010	-.00030	.00000	-.00010	.69500	252.00000	.00030
3.496	18.090	-0.8150	.00030	.00020	-.00030	-.00020	.00000	.68960	252.00000	.00030
3.496	21.120	-0.93640	.00070	-.00030	-.00020	-.00120	.00040	.68760	252.00000	.00020
3.496	24.160	-1.0880	.00080	-.00050	.00000	-.00100	.00030	.68500	252.00000	.00020
3.496	27.060	-1.2250	.00090	-.00090	.00020	-.00130	.00040	.68330	252.00000	.00020
	GRADIENT	-.00060	-.00057	.00000	-.00002	-.00042	.00014	.29862	-.00000	-.00007

ARC 87-747 OASDC B C N F M V MON. RN/L SEAL EL (AEL050) ( 07 MAR 74 )

## REFERENCE DATA

REF = 2.4210 SA.FT. WREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEWON = .000  
 AIRRON = .000 BCFAP = 16.300  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 517/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMP/D	CY	CYN	CBL	CYV	CYNV	WPL/L	Q	CBLV
2.498	-1.506	-0.0090	.00130	.00000	-0.00020	.00310	-0.00120	.55170	318.20000	.00070
2.498	.186	-0.0120	.00050	-0.0010	-0.00020	.00300	-0.00120	.44910	318.20000	.00060
2.498	1.202	-0.0190	.00010	.00000	-0.00020	.00250	-0.00100	1.83100	318.20000	.00050
2.498	3.232	-0.0180	.00070	.00010	-0.00030	.00190	-0.00070	.73460	318.20000	.00040
2.498	5.236	-0.0299	.00170	.00000	-0.00030	.00210	-0.00080	.70730	318.20000	.00040
2.498	7.284	-0.0240	.00140	-0.0010	-0.00020	.00210	-0.00080	.68820	318.20000	.00040
2.498	9.312	-0.0320	.00170	-0.0020	-0.00020	.00210	-0.00080	.67820	318.20000	.00040
2.498	12.360	-0.0420	.00150	-0.0030	-0.0010	.00230	-0.00090	.67240	318.20000	.00050
2.498	15.410	-0.0460	.00050	-0.0030	-0.0010	.00280	-0.00100	.66780	318.20000	.00050
2.498	18.460	-0.0530	.00040	-0.0030	.00010	.00290	-0.00100	.66690	318.20000	.00040
2.498	21.510	-0.0630	.00040	-0.0030	.00020	.00150	-0.00050	.66310	318.20000	.00040
2.498	24.560	-0.0760	.00050	-0.0030	.00050	.00070	-0.00030	.66540	318.20000	.00030
2.498	27.495	-0.0870	.00130	-0.0010	.00380	.00210	-0.00070	.66560	318.20000	.00040
2.498	GRADIENT	-0.0276	-0.0050	.00004	-0.00003	-0.00034	.00014	.08949	.00000	-0.00008

RUN NO. 518/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMP/D	CY	CYN	CBL	CYV	CYNV	WPL/L	Q	CBLV
3.000	-1.579	-0.0160	.00130	.00010	-0.00010	.00230	-0.00090	.51540	287.30000	.00060
3.000	.142	-0.0160	.00060	.00010	-0.00010	.00190	-0.00070	.46070	287.30000	.00040
3.000	1.152	-0.0190	.00050	.00010	-0.00010	.00130	-0.00060	-.02930	287.30000	.00040
3.000	3.180	-0.0190	.00110	.00010	-0.00010	.00060	-0.00030	.81640	287.30000	.00020
3.000	5.194	-0.0220	.00160	.00020	-0.00020	.00050	-0.00030	.71740	287.30000	.00020
3.000	7.232	-0.0230	.00220	.00010	-0.00020	.00120	-0.00040	.68940	287.30000	.00030
3.000	9.252	-0.0260	.00210	.00000	-0.00020	.00070	-0.00030	.67750	287.30000	.00020
3.000	12.280	-0.0320	.00200	.00000	-0.00020	.00140	-0.00050	.67050	287.30000	.00030
3.000	15.320	-0.0370	.00120	-0.00030	.00000	.00050	-0.00020	.66560	287.30000	.00030
3.000	18.360	-0.0440	.00110	-0.00030	.00010	.00010	-0.00010	.66340	287.30000	.00030
3.000	21.420	-0.0510	.00080	-0.00070	.00020	.00030	-0.00000	.66400	287.30000	.00020
3.000	24.460	-0.0630	.00120	-0.00080	.00020	.00020	-0.00010	.66300	287.30000	.00020
3.000	27.330	-0.0690	.00110	-0.00110	.00050	.00070	-0.00030	.66160	287.30000	.00030
3.000	GRADIENT	-0.0067	-0.00065	.00000	.00000	-0.00045	.00015	.07656	.00000	-0.00010

(AEL050) ( 07 MAR 74 )

ARC 87-747 0453C B C M F W V NOM. RN/L SEAL.EL

PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 ALLCON = .000 BDFLAP = 16.300  
 SPBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 22.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

RUN NO. 519/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFLD	CY	CYN	CBL	CYV	CYNV	XCFL	Q	CBLV
3.496	-0.818	-0.0220	.00190	.00050	.00000	.00220	-.00080	.47590	252.70000	.00060
3.496	-1.101	-0.0220	.00160	.00030	.00000	.00170	-.00070	.43610	252.70000	.00050
3.496	.907	-0.0230	-.00040	.00060	.00000	.00110	-.00050	.20680	252.70000	.00040
3.496	2.925	-0.0160	-.00020	.00040	-.00020	-.00010	-.00010	.91090	252.70000	.00020
3.496	4.941	-0.0090	-.00080	.00040	-.00020	.00010	-.00010	.74030	252.70000	.00020
3.496	6.965	-0.0200	-.00180	.00040	-.00030	-.00010	.00000	.69120	252.70000	.00020
3.496	8.983	-0.0240	-.00160	.00040	-.00030	-.00050	.00010	.67720	252.70000	.00020
3.496	12.010	-0.0230	-.00240	.00020	-.00040	-.00040	.00000	.67120	252.70000	.00020
3.496	15.050	-0.0330	-.00140	.00010	-.00040	-.00020	.00020	.66590	252.70000	.00030
3.496	18.080	-0.0370	-.00160	.00010	-.00030	-.00090	.00000	.66230	252.70000	.00020
3.496	21.120	-0.0430	-.00150	-.00010	-.00030	-.00120	.00040	.66060	252.70000	.00010
3.496	24.160	-0.0510	-.00120	-.00040	-.00020	-.00130	.00040	.65960	252.70000	.00000
3.496	27.060	-0.0610	-.00140	-.00060	-.00020	-.00120	.00040	.66030	252.70000	.00010
	GRADIENT	.00024	-.00045	-.00001	-.00004	-.00039	.00013	.07795	.00000	-.00007

DATE 15 JUL 74

TABULATED SOURCE DATA - 0433C

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ARC 87-747 0433C B C H F W V NOM. RN/L

(AELOS1) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.  
 LREF = 14.2445 IN.  
 BREF = 28.1004 IN.  
 SCALE = .0300 SCALE

ALPHA = .000  
 AILRON = .000  
 SPDRK = 25.000  
 ELEV-L = .000  
 ELEWN = .000  
 BDFLAP = -11.700  
 RUDDER = -25.000  
 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 440/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFW	CY	CYN	CBL	CVV	CYNV	XCP/L	Q	CBLV
2.428	-4.551	-.00920	.06960	.01180	-.00460	.01320	-.00330	.52460	322.40000	-.00310
2.498	-2.677	-.00500	.03220	.01290	-.00610	-.00100	-.00320	.57280	322.40000	-.00100
2.498	.301	-.00100	-.02120	.01300	-.00780	-.01990	.01180	.61900	322.40000	-.00690
2.498	3.373	.00040	-.07490	.01350	-.00960	-.03960	.02060	.63640	322.40000	-.01310
2.498	5.421	-.00170	-.10980	.01430	-.01060	-.03280	.02650	.61620	322.40000	-.01690
2.498	7.092	.00020	-.13940	.01480	-.01120	-.06360	.03120	.63450	322.40000	-.01980
2.498	GRADIENT	.00118	-.01797	.00018	-.00061	-.00654	.00296	.01378	.00000	-.00201

RUN NO. 443/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFW	CY	CYN	CBL	CVV	CYNV	XCP/L	Q	CBLV
3.001	-4.630	-.01780	.07500	.00910	-.00330	.01530	-.00480	.40820	289.10000	.00350
3.001	-2.622	-.01220	.03810	.01020	-.00460	.00110	.00160	.52070	289.10000	-.00040
3.001	.400	-.00810	-.01740	.01100	-.00650	-.01380	.00970	.55900	289.10000	-.00580
3.001	3.521	-.00820	-.07100	.01150	-.00800	-.03420	.01790	.56450	289.10000	-.01110
3.001	5.611	-.00830	-.10670	.01220	-.00890	-.04730	.02360	.56390	289.10000	-.01470
3.001	7.323	-.00380	-.13690	.01290	-.00980	-.05710	.02810	.60430	289.10000	-.01750
3.001	GRADIENT	.00115	-.01794	.00028	-.00058	-.00600	.00276	.01746	.00000	-.00179

RUN NO. 446/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFW	CY	CYN	CBL	CVV	CYNV	XCP/L	Q	CBLV
3.496	-4.836	-.01950	.07180	.00850	-.00320	.01110	-.00340	.43950	255.10000	.00250
3.496	-2.757	-.01640	.03710	.00900	-.00420	.00010	.00170	.49580	255.10000	-.00060
3.496	.348	-.01310	-.01230	.00970	-.00340	-.01350	.00810	.52830	255.10000	-.00480
3.496	3.569	-.00950	-.06720	.01000	-.00670	-.02940	.01330	.56770	255.10000	-.00930
3.496	5.726	-.00940	-.10120	.01010	-.00750	-.04110	.02050	.57110	255.10000	-.01240
3.496	7.462	-.01150	-.12720	.01020	-.00820	-.04860	.02410	.54290	255.10000	-.01470
3.496	GRADIENT	.00117	-.01647	.00016	-.00041	-.00476	.00220	.01444	-.00000	-.00140

(AELO32) (07 MAR 74)

ARC 87-747 3433C B C M F W V NOM. RN/L

TABULATED SOURCE DATA - 0453C

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .003  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 25.000 RUDDER = -25.000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 441/0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.498	-4.735	-.01670	.05530	.01290	-.00070	.00650	-.00110	.65450	326.40000	.00180
2.498	-2.723	-.01420	.02640	.01270	-.00330	-.00240	.00320	.65120	326.40000	-.00120
2.498	.297	-.01180	-.01970	.01080	-.00640	-.01690	.01000	.64820	326.40000	-.00590
2.498	3.328	-.01100	-.06750	.00950	-.00980	-.03230	.01730	.64730	326.40000	-.01090
2.498	5.335	-.01160	-.10060	.00940	-.01240	-.04240	.02190	.64790	326.40000	-.01410
2.498	7.357	-.01180	-.13100	.00830	-.01470	-.04770	.02500	.64790	326.40000	-.01620
2.498	9.376	-.01470	-.16270	.00680	-.01670	-.05620	.02860	.65140	326.40000	-.01880
	GRADIENT	.00070	-.01526	-.00143	-.00111	-.00482	.00228	-.00088	.00000	-.00158

RUN NO. 444/0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-4.714	-.01560	.06070	.01070	.00130	.00700	-.00190	.65600	289.50000	.00240
3.001	-2.670	-.01440	.03090	.00980	-.00110	-.00030	.00170	.65480	289.50000	-.00040
3.001	.396	-.00830	-.01720	.00920	-.00530	-.01410	.00840	.64550	289.50000	-.00490
3.001	3.473	-.01000	-.06570	.00880	-.00960	-.02880	.01540	.64800	289.50000	-.00960
3.001	5.514	-.00760	-.09450	.00780	-.01190	-.03400	.01840	.64430	289.50000	-.01170
3.001	7.559	-.00980	-.12450	.00710	-.01400	-.04300	.02230	.64760	289.50000	-.01450
3.001	9.615	-.01250	-.15530	.00620	-.01610	-.05050	.02560	.65190	289.50000	-.01650
	GRADIENT	.00082	-.01549	-.00022	-.00134	-.00441	.00213	-.00120	-.00000	-.00147

RUN NO. 447/0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-4.917	-.01670	.06220	.00820	.00270	.00700	-.00250	.66110	255.10000	.00240
3.496	-2.806	-.01080	.03100	.00840	-.00040	-.00130	.00180	.65230	255.10000	-.00040
3.496	.352	-.00650	-.02310	.00780	-.00480	-.01270	.00740	.64490	255.10000	-.00420
3.496	3.519	-.00390	-.05930	.00780	-.00890	-.02440	.01310	.64000	255.10000	-.00810
3.496	5.625	-.00750	-.08820	.00650	-.01120	-.03130	.01650	.64660	255.10000	-.01040
3.496	7.741	-.00700	-.11650	.00500	-.01310	-.03860	.01970	.64540	255.10000	-.01250
3.496	9.850	-.00910	-.14620	.00310	-.01450	-.04380	.02210	.64920	255.10000	-.01400
	GRADIENT	.00147	-.01467	-.00507	-.00137	-.00371	.00184	-.00244	.00000	-.00124



ARC 87-747 0A53C B C H M V NOM. RN/L

(AEL053) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 26.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 25.000 RUDDER = -25.000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 442/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWO	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.498	-4.738	-.03320	.05210	.01670	.00370	-.01330	.00580	.65110	326.60000	-.00220
2.498	-2.727	-.02840	.02050	.01490	-.00060	-.01710	.00840	.64860	326.60000	-.00400
2.498	.277	-.02690	-.01720	.00820	-.00490	-.01300	.00790	.64790	326.60000	-.00470
2.498	3.317	-.02840	-.03300	.00130	-.00900	-.00870	.00710	.64850	326.60000	-.00530
2.498	5.341	-.03300	-.07760	-.00230	-.01190	-.00880	.00740	.65100	326.60000	-.00580
2.498	7.370	-.03120	-.10730	-.00550	-.01540	-.01320	.00930	.64990	326.60000	-.00700
2.498	9.587	-.03090	-.12420	-.01050	-.01880	-.01820	.01160	.65090	326.60000	-.00840
	GRADIENT	.00054	-.01292	-.00197	-.00155	.00072	.00010	-.00029	.00000	-.00036

RUN NO. 445/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWO	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.001	-4.721	-.02920	.05680	.01230	.00560	-.00370	.00160	.65100	293.30000	.00000
3.001	-2.678	-.02230	.02600	.01130	.00140	-.00970	.00490	.64680	293.30000	-.00200
3.001	.375	-.01850	-.01270	.00620	-.00350	-.00950	.00590	.64450	293.30000	-.00340
3.001	3.465	-.02100	-.04950	.00560	-.00840	-.00880	.00640	.64600	293.30000	-.00470
3.001	5.517	-.02460	-.07600	-.00260	-.01150	-.01100	.00750	.64810	293.30000	-.00550
3.001	7.579	-.02230	-.10590	-.00460	-.01530	-.01570	.00960	.64670	293.30000	-.00680
3.001	9.624	-.02230	-.13290	-.00600	-.01970	-.02130	.01220	.64670	293.30000	-.00840
	GRADIENT	.00096	-.01290	-.00148	-.00169	-.00049	.00053	-.00058	-.00000	-.00055

RUN NO. 448/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CLMFWO	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.496	-4.914	-.02190	.05750	.01000	.00730	-.00020	.00000	.64770	255.00000	.00070
3.496	-2.809	-.01780	.02580	.00890	.00250	-.00570	.00300	.64500	255.00000	-.00110
3.496	.335	-.01380	-.01170	.00490	-.00320	-.00760	.00470	.64230	255.00000	-.00280
3.496	3.509	-.01610	-.04670	.00030	-.00830	-.00880	.00590	.64390	255.00000	-.00410
3.496	5.632	-.01750	-.07380	-.00260	-.01190	-.01200	.00740	.64480	255.00000	-.00510
3.496	7.755	-.01930	-.10340	-.00550	-.01530	-.01590	.00910	.64610	255.00000	-.00630
3.496	9.876	-.01830	-.12730	-.00760	-.01870	-.02010	.01110	.64560	255.00000	-.00760
	GRADIENT	.00071	-.01225	-.00118	-.00184	-.00094	.00066	-.00047	.00000	-.00056

DATE 15 JUL 74

TABULATED SOURCE DATA - Q433C

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ARC 87-747 Q433C B C M F W V NOM. RN/L

(AEL054) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. YMRP = 11.2500 IN.  
SCALE = .0000 SCALE

BETA = .000 ELEVON = -20.000  
AILRON = 15.000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -5.000 ELEV-R = 35.000

PARAMETRIC DATA

RUN NO. 529/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
2.499	-.520	.03670	-.00390	.00710	.00960	.00270	-.00110	.74650	320.90000	.00060
2.499	.175	.03550	-.00430	.00680	.00940	.00230	-.00090	.76190	320.90000	.00060
2.499	1.188	.03420	-.00490	.00650	.00910	.00190	-.00080	.80840	320.90000	.00050
2.499	3.218	.02940	-.00490	.00550	.00860	.00110	-.00050	1.98400	320.90000	.00030
2.499	5.247	.02390	-.00390	.00460	.00830	.00130	-.00050	.46370	320.90000	.00030
2.499	7.279	.01860	-.00360	.00440	.00820	.00150	-.00060	.57860	320.90000	.00040
2.499	9.311	.01690	-.00360	.00410	.00810	.00160	-.00060	.60040	320.90000	.00040
2.499	12.370	.01620	-.00410	.00380	.00810	.00190	-.00070	.61000	320.90000	.00050
2.499	15.420	.01410	-.00500	.00200	.00790	.00200	-.00070	.62000	320.90000	.00050
2.499	18.500	.01080	-.00040	.00120	.00790	.00150	-.00060	.62520	320.90000	.00040
2.499	21.520	.00510	.00210	.00050	.00810	.00020	-.00020	.62970	320.90000	.00030
2.499	24.580	.00080	.00270	.00000	.00860	.00010	-.00010	.63230	320.90000	.00030
2.499	27.450	-.00290	.00360	-.00090	.00950	.00100	-.00040	.63400	320.90000	.00040
GRADIENT		-.00195	-.00026	-.00042	-.00027	-.00042	.00015	.34279	-.00000	-.00009

RUN NO. 530/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYNV	XCP/L	Q	CBLV
3.000	-.561	.01930	-.00130	.00560	.00780	.00110	-.00050	.69960	291.20000	.00050
3.000	.134	.01580	-.00090	.00540	.00760	.00080	-.00040	.69610	291.20000	.00040
3.000	1.142	.01670	-.00150	.00510	.00730	-.00010	-.00010	.71640	291.20000	.00030
3.000	3.158	.01780	-.00230	.00460	.00690	-.00080	.00020	.91310	291.20000	.00010
3.000	5.175	.01450	-.00160	.00380	.00660	.00004	.00000	.48310	291.20000	.00020
3.000	7.219	.01370	-.00190	.00340	.00650	.00020	-.00010	.57950	291.20000	.00020
3.000	9.247	.01530	-.00180	.00330	.00630	-.00010	.00000	.59550	291.20000	.00020
3.000	12.290	.01520	-.00210	.00300	.00630	-.00020	.00000	.61020	291.20000	.00020
3.000	15.330	.01290	-.00070	.00210	.00630	.00040	-.00020	.61920	291.20000	.00030
3.000	18.370	.00860	.00000	.00110	.00650	-.00030	.00000	.62580	291.20000	.00020
3.000	21.410	.00860	.00100	.00060	.00690	-.00060	.00010	.62710	291.20000	.00020
3.000	24.470	.00840	.00120	.00030	.00740	-.00070	.00020	.62820	291.20000	.00020
3.000	27.310	.00500	.00320	-.00080	.00810	-.00060	.00010	.63040	291.20000	.00020
GRADIENT		-.00010	-.00033	-.00027	-.00024	-.00052	.00019	.06022	.00000	-.00011

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C H F W V NOM. RN/L

(AEL054) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT.  
LREF = 14.2440 IN.  
BREF = 28.1004 IN.  
SCALE = .0300 SCALE

YMRP = 32.3010 IN.  
YMRP = .0000 IN.  
ZMRP = 11.2500 IN.

BETA = .000 ELEWON = -20.000  
AILRON = 15.000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -5.000 ELEV-R = 35.000

PARAMETRIC DATA

RUN NO. 531/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLMFWD	CY	CYN	CBL	CYV	CYVW	XCP/L	Q	CBLV
3.496	-1.807	.00730	.00080	.00510	.00700	.00130	-.00050	.63760	253.70000	.00030
3.496	-.100	.00980	.00040	.00500	.00690	.00120	-.00050	.66860	253.70000	.00040
3.496	.914	.00770	-.00090	.00460	.00640	.00040	-.00030	.66940	253.70000	.00030
3.496	2.929	.01060	-.00060	.00390	.00590	-.00080	.00010	.78780	253.70000	.00020
3.496	4.942	.00770	-.00070	.00330	.00550	-.00070	.00020	.50810	253.70000	.00010
3.496	6.945	.00890	-.00060	.00310	.00530	-.00030	.00010	.58650	253.70000	.00020
3.496	8.971	.01130	-.00030	.00290	.00510	-.00110	.00030	.60000	253.70000	.00010
3.496	12.000	.01210	-.00080	.00250	.00510	-.00120	.00030	.61210	253.70000	.00010
3.496	15.040	.01180	.00000	.00170	.00510	-.00090	.00010	.61880	253.70000	.00020
3.496	18.080	.01060	.00030	.00120	.00520	-.00150	.00040	.62310	253.70000	.00010
3.496	21.130	.00920	.00000	.00110	.00550	-.00180	.00060	.62610	253.70000	.00000
3.496	24.170	.00920	.00110	.00050	.00600	-.00130	.00040	.62730	253.70000	.00000
3.496	27.000	.00970	.00220	-.00030	.00650	.00030	-.00010	.62780	253.70000	.00020
3.496	GRADIENT	.00007	-.00023	-.00033	-.00027	-.00040	.00014	-.01600	.00000	-.00007

ARC 87-747 OA53C B C H F W V NOM. RN/L

(08L002) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0350 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -10.000  
 AILRON = .000 BOFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -10.000 ELEV-R = -10.000

RUN NO. 514/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-0.591	-0.00050	-0.8770	.02060	.10830	-1.1880	-0.09870	-1.1650	-1.1040	.00150	315.90000
2.498	.129	.00100	.08240	.01870	.10100	-1.1630	-0.09740	-1.1540	-0.9930	.00330	315.90000
2.498	1.143	.00110	.07440	.01600	.09030	-1.1360	-0.09620	-1.1250	-0.9840	.00400	315.90000
2.498	3.161	.00370	.05760	.01150	.06900	-1.0910	-0.09330	-1.1020	-0.9610	-0.0150	315.90000
2.498	5.192	.00440	.04000	.00750	.04750	-1.0370	-0.09070	-1.0660	-0.9420	.00000	315.90000
2.498	7.219	.00530	.02470	.00370	.02840	-1.0110	-0.08810	-1.0250	-0.9190	-0.0710	315.90000
2.498	9.246	.00380	.01350	-0.0020	.01330	-0.9890	-0.08550	-0.9790	-0.8830	-0.0560	315.90000
2.498	12.300	.00450	-0.00770	-0.00910	-0.0350	-0.9350	-0.08240	-0.9480	-0.8550	-0.1290	315.90000
2.498	15.360	.00380	-0.01640	-0.01380	-0.03020	-0.8970	-0.07860	-0.9080	-0.8230	-0.2330	315.90000
2.498	18.410	.00320	-0.03200	-0.01990	-0.05230	-0.8650	-0.07160	-0.8720	-0.7400	-0.3690	315.90000
2.498	21.460	.00560	-0.04830	-0.02550	-0.07380	-0.7900	-0.04990	-0.8050	-0.5400	-0.5450	315.90000
2.498	24.510	.00420	-0.06320	-0.03200	-0.09520	-0.6960	-0.03240	-0.7100	-0.3520	-0.7070	315.90000
2.498	27.360	.00390	-0.07820	-0.03820	-0.11640	-0.5350	-0.02070	-0.5580	-0.2220	-0.8830	315.90000
GRADIENT		.00104	-0.00806	-0.00242	-0.01050	.00254	.00141	.00172	.00112	-0.00096	.00000

RUN NO. 515/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-0.611	.00280	.05660	.01710	.07570	-0.9720	-0.08390	-0.9700	-0.8710	-0.00080	285.50000
3.001	.079	.00380	.05500	.01580	.07070	-0.9620	-0.08300	-0.9690	-0.8610	-0.0220	285.50000
3.001	1.093	.00510	.04840	.01420	.06290	-0.9340	-0.08160	-0.9510	-0.8500	.00080	285.50000
3.001	3.122	.00510	.03580	.01050	.04640	-0.9230	-0.08010	-0.9330	-0.8410	-0.0030	285.50000
3.001	5.136	.00570	.02440	.00730	.03170	-0.9000	-0.07680	-0.9110	-0.8140	-0.0020	285.50000
3.001	7.161	.00690	.01530	.00350	.01880	-0.8650	-0.07330	-0.8900	-0.7780	-0.0560	285.50000
3.001	9.189	.00670	.00680	.00000	.00680	-0.8230	-0.07000	-0.8500	-0.7400	-0.0510	285.50000
3.001	12.220	.00550	-0.00440	-0.00480	-0.00920	-0.7840	-0.06830	-0.8060	-0.7160	-0.1550	285.50000
3.001	15.260	.00480	-0.01520	-0.00980	-0.02500	-0.7260	-0.06330	-0.7490	-0.6580	-0.2050	285.50000
3.001	18.310	.00450	-0.02680	-0.01500	-0.04170	-0.6890	-0.05090	-0.7000	-0.5420	-0.3320	285.50000
3.001	21.350	.00620	-0.03880	-0.01980	-0.05860	-0.6190	-0.03180	-0.6420	-0.4620	-0.4270	285.50000
3.001	24.400	.00410	-0.04970	-0.02530	-0.07500	-0.5150	-0.02020	-0.5230	-0.3570	-0.5320	285.50000
3.001	27.240	.00210	-0.06290	-0.03050	-0.09340	-0.3870	-0.01770	-0.03930	-0.2350	-0.6920	285.50000
GRADIENT		.00058	-0.00617	-0.00176	-0.00789	.00134	.00101	.00106	.00077	.00032	.00000

(BEL002) (07 MAR 74)

ARC 87-747 ON53C B C H F M V NOM. RN/L

PARAMETRIC DATA

BETA = .000 ELEWON = -10.000  
 AIRON = .000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -10.000 ELEV-R = -10.000

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

RUN NO. 516/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CHR	CHRI	CHCO	CHET	CHUL	CHLL	CHUR	CHLR	CHRF	Q
3.496	-8.53	.00130	.04200	.01510	.05710	-.07900	-.07160	-.07710	-.07470	-.00100	249.40000
3.496	-1.66	.00340	.03900	.01470	.05360	-.07780	-.07060	-.07720	-.07460	.00000	249.40000
3.496	.851	.00390	.03400	.01280	.04680	-.07530	-.07020	-.07620	-.07320	.00060	249.40000
3.496	2.858	.00790	.02380	.00930	.03300	-.07250	-.07060	-.07540	-.07560	-.00260	249.40000
3.496	4.877	.01010	.01640	.00820	.02260	-.07150	-.06810	-.07320	-.07440	-.00030	249.40000
3.496	6.898	.00970	.00940	.00310	.01250	-.07020	-.06390	-.07360	-.07030	-.00420	249.40000
3.496	8.918	.00800	.00300	.00080	.00380	-.06840	-.06030	-.07100	-.06570	-.03150	249.40000
3.496	11.960	.00520	-.00500	-.00340	-.00840	-.06610	-.05770	-.06820	-.06090	-.00970	249.40000
3.496	14.995	.00380	-.01360	-.00750	-.02090	-.06220	-.04960	-.06310	-.05250	-.01800	249.40000
3.496	18.020	.00690	-.02220	-.01080	-.03310	-.05610	-.03500	-.05810	-.03990	-.02740	249.40000
3.496	21.060	.00410	-.03110	-.01470	-.04580	-.04900	-.02080	-.04990	-.02410	-.03510	249.40000
3.496	24.110	.00390	-.04080	-.01940	-.06020	-.03610	-.01570	-.03800	-.01780	-.04530	249.40000
3.496	26.940	.00570	-.05170	-.02440	-.07610	-.02980	-.01130	-.03040	-.01640	-.05540	249.40000
3.496	GRADIENT	.00151	-.00456	-.00162	-.00618	.00134	.00048	.00038	-.00006	-.00012	.00000

ARC 87-747 OA33C B C M F M V NOM. RN/L

(BEL003) ( 07 MAR 74 )

## REFERENCE DATA

SRF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2445 IN. YMRP = .0000 IN.  
 BRF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = 15.000  
 AILEON = .000 BDFAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

## PARAMETRIC DATA

RUN NO. 503/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-1.584	-0.0410	-0.03290	-0.03230	-0.08320	-1.11910	-0.09920	-1.11510	-0.09910	-0.03330	320.40000
2.498	.129	-0.0140	-0.05730	-0.03450	-0.09190	-1.11610	-0.09820	-1.11500	-0.09800	-0.00080	320.40000
2.498	1.140	-0.00020	-0.06410	-0.03810	-0.10220	-1.11370	-0.09710	-1.11360	-0.09710	-0.01000	320.40000
2.498	3.168	-0.00010	-0.07790	-0.04530	-0.12330	-1.10300	-0.09390	-1.09200	-0.09480	-0.00600	320.40000
2.498	5.193	-0.00110	-0.09270	-0.05250	-0.14520	-1.05700	-0.09140	-1.06600	-0.09220	-0.00980	320.40000
2.498	7.218	-0.00090	-0.10660	-0.05970	-0.16630	-1.01600	-0.08920	-1.01190	-0.08980	-0.01100	320.40000
2.498	9.250	-0.00070	-0.11980	-0.06710	-0.18690	-0.98000	-0.08620	-0.97800	-0.08710	-0.01650	320.40000
2.498	12.300	-0.00050	-0.14210	-0.07870	-0.20800	-0.93200	-0.08310	-0.93600	-0.08380	-0.02430	320.40000
2.498	15.360	-0.00040	-0.16680	-0.09050	-0.25730	-0.89130	-0.07980	-0.90200	-0.08540	-0.03580	320.40000
2.498	18.400	-0.00040	-0.19200	-0.10360	-0.29560	-0.86900	-0.07130	-0.87200	-0.07150	-0.04970	320.40000
2.498	21.460	-0.00150	-0.22020	-0.11700	-0.33710	-0.78800	-0.05540	-0.79800	-0.05100	-0.06540	320.40000
2.498	24.510	-0.00190	-0.24840	-0.13080	-0.37920	-0.68100	-0.03310	-0.69700	-0.03340	-0.08770	320.40000
2.498	27.390	-0.00080	-0.27660	-0.14380	-0.42040	-0.55270	-0.02140	-0.54600	-0.02030	-0.09950	320.40000
GRADIENT		-0.00091	-0.00669	-0.00349	-0.01020	-0.00224	-0.00141	-0.00165	-0.00112	-0.00116	.00000

RUN NO. 504/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-1.627	-0.00030	-0.03550	-0.02360	-0.05910	-0.09650	-0.08510	-0.09750	-0.08580	-0.00170	288.30000
3.001	.081	-0.00080	-0.03960	-0.02570	-0.06520	-0.09710	-0.08430	-0.09740	-0.08470	-0.00080	288.30000
3.001	1.089	-0.00230	-0.04510	-0.02820	-0.07330	-0.09390	-0.08300	-0.09550	-0.08370	-0.00170	288.30000
3.001	3.113	-0.00350	-0.05670	-0.03470	-0.09140	-0.09190	-0.08050	-0.09330	-0.08260	-0.00170	288.30000
3.001	5.135	-0.00310	-0.06900	-0.04130	-0.10330	-0.08940	-0.07800	-0.09130	-0.07920	-0.00250	288.30000
3.001	7.156	-0.00340	-0.08150	-0.04850	-0.13010	-0.08610	-0.07400	-0.08790	-0.07560	-0.00450	288.30000
3.001	9.177	-0.00310	-0.09470	-0.05590	-0.15060	-0.08280	-0.07170	-0.08490	-0.07270	-0.01230	288.30000
3.001	12.230	-0.00250	-0.11650	-0.06750	-0.18400	-0.07870	-0.06900	-0.08020	-0.07000	-0.07790	288.30000
3.001	15.260	-0.00110	-0.14210	-0.08060	-0.22270	-0.07330	-0.06440	-0.07440	-0.06450	-0.02680	288.30000
3.001	18.310	-0.00250	-0.16960	-0.09460	-0.26410	-0.06760	-0.05110	-0.06950	-0.05170	-0.03880	288.30000
3.001	21.350	-0.00180	-0.19750	-0.10810	-0.30560	-0.06170	-0.03210	-0.06300	-0.03260	-0.04800	288.30000
3.001	24.410	-0.00060	-0.23030	-0.12220	-0.35240	-0.05160	-0.02110	-0.05150	-0.02170	-0.06640	288.30000
3.001	27.280	-0.00010	-0.25650	-0.13500	-0.39150	-0.03940	-0.01790	-0.03920	-0.01800	-0.07950	288.30000
GRADIENT		-0.00100	-0.00566	-0.00296	-0.00862	-0.00178	-0.00124	-0.00120	-0.00082	-0.00358	.00000

ARC 87-747 QM33C B C M F W V NON. RNVL

(BEL003) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = 15.000  
 AILEON = .000 BDFLAP = -11.700  
 SPCRR = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

## PARAMETRIC DATA

RUN NO. 505/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CH2	CH2I	CH2O	CH2T	CH2L	CH2H	CH2F	CH2Q
3.496	-0.376	-0.05140	-0.02410	-0.01910	-0.04310	-0.07780	-0.07190	-0.07550	-0.07280
3.496	-0.167	-0.02020	-0.02750	-0.02040	-0.04790	-0.07560	-0.07070	-0.07560	-0.07270
3.496	.840	.00060	-0.03270	-0.02290	-0.05560	-0.07470	-0.07070	-0.07450	-0.07150
3.496	2.864	.00680	-0.04310	-0.02870	-0.07190	-0.07060	-0.07040	-0.07430	-0.07350
3.496	4.877	.00680	-0.05420	-0.03450	-0.08870	-0.07080	-0.06870	-0.07370	-0.07260
3.496	6.898	.01170	-0.06660	-0.04150	-0.10800	-0.06910	-0.06380	-0.07640	-0.06830
3.496	8.920	.00340	-0.07990	-0.04940	-0.12930	-0.06800	-0.06010	-0.06800	-0.06350
3.496	11.950	.00360	-0.10130	-0.06080	-0.16210	-0.06500	-0.05780	-0.06720	-0.05940
3.496	14.980	-0.00070	-0.12630	-0.07350	-0.19980	-0.06230	-0.05020	-0.06160	-0.05020
3.496	18.020	.00330	-0.15410	-0.08550	-0.23950	-0.05580	-0.03490	-0.05680	-0.03730
3.496	21.060	.00080	-0.18310	-0.09870	-0.28180	-0.04910	-0.02020	-0.04860	-0.02150
3.496	24.100	.00220	-0.21290	-0.11270	-0.32570	-0.03570	-0.01490	-0.03680	-0.01600
3.496	26.970	.00160	-0.24090	-0.12590	-0.36680	-0.02940	-0.01250	-0.02960	-0.01390
3.496	GRADIENT	.00143	-0.00523	-0.00272	-0.00797	-0.00125	-0.00045	-0.00033	-0.00006

TABULATED SOURCE DATA - QAS3C

DATE 15 JUL 74

(06L004) ( 07 MAR 74 )

ARC 87-747 QAS3C B C W F M V NOM. RN/L

PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AILERON = 3.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 5.000 ELEV-R = -5.000

REFERENCE DATA

SRF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0050 IN.  
 BREF = 20.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

RUN NO. 407/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHP	CHEI	CHEO	CHET	CHLL	CHUL	CHUR	CHLF	Q
2.499	-5.56	.01310	.05530	.00790	.06330	-.11760	-.10410	-.11420	-.09450	.00020
2.499	-5.99	.01150	.05230	.00660	.05880	-.11680	-.10410	-.11420	-.09510	.00150
2.499	1.415	.01090	.04120	.00340	.04450	-.11360	-.10160	-.11110	-.09310	.00120
2.499	3.443	.00920	.02550	-.00100	.02440	-.11000	-.09800	-.10750	-.09130	.00470
2.499	5.468	.00930	.00960	-.00550	.00420	-.10560	-.09590	-.10410	-.08790	-.00890
2.499	7.504	.00880	-.00350	-.01000	-.01350	-.10110	-.09250	-.09960	-.08530	-.01140
2.499	9.529	.01030	-.01490	-.01470	-.02950	-.09740	-.09150	-.09530	-.08330	.01460
2.499	12.530	.00910	-.02940	-.02170	-.05110	-.09350	-.08670	-.09220	-.07500	-.01810
2.499	15.630	.01010	-.04580	-.02830	-.07410	-.09080	-.08470	-.08890	-.07650	.02580
2.499	18.690	.00970	-.06150	-.03510	-.09700	-.08650	-.07540	-.08490	-.06720	-.01440
2.499	21.740	.00820	-.07930	-.04190	-.12090	-.07860	-.05190	-.07690	-.04550	.06250
2.499	24.800	.00610	-.09600	-.04910	-.14520	-.06850	-.03360	-.06770	-.02820	-.07920
2.499	27.340	.00770	-.11100	-.05550	-.16650	-.05320	-.02420	-.05320	-.01640	-.08990
GRADIENT	.00085	-.00746	-.00219	-.00969	.00191	.00159	.00175	.00175	.00091	.00134

RUN NO. 408/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHP	CHEI	CHEO	CHET	CHLL	CHUL	CHUR	CHLF	Q
3.001	-6.09	.00770	.03570	.00630	.04200	-.09780	-.08770	-.09580	-.06770	290.80000
3.001	-1.49	.00660	.03310	.00570	.03870	-.09590	-.08730	-.09520	-.06140	290.80000
3.001	1.360	.00600	.02470	.00370	.02840	-.09340	-.08680	-.09360	-.06050	290.80000
3.001	3.387	.00650	.01330	.00000	.01330	-.09210	-.08430	-.09140	-.07860	-.00190
3.001	5.412	.00720	.00320	-.00350	-.00300	-.08920	-.08160	-.08910	-.07450	.00380
3.001	7.440	.00530	-.00530	-.00740	-.01270	-.08610	-.07620	-.08600	-.07090	-.00630
3.001	9.460	.00650	-.01340	-.01180	-.02520	-.08260	-.07390	-.08280	-.06730	.01050
3.001	12.500	.00720	-.02470	-.01670	-.04140	-.07810	-.07200	-.07800	-.06490	-.01880
3.001	15.550	.00670	-.03720	-.02270	-.05990	-.07310	-.06540	-.07270	-.05910	.02430
3.001	18.590	.00650	-.05080	-.02890	-.07970	-.06780	-.05280	-.06720	-.04490	-.03670
3.001	21.630	.00740	-.06440	-.03450	-.09890	-.06190	-.03100	-.06010	-.02540	-.04560
3.001	24.690	.00670	-.07870	-.04140	-.12010	-.04950	-.02140	-.04840	-.01580	-.06380
3.001	27.230	.00630	-.09230	-.04720	-.13950	-.03820	-.01870	-.03740	-.01330	-.06900
GRADIENT	.00023	-.00560	-.00157	-.00716	.00134	.00062	.00062	.00109	.00080	.00154



(06L004) ( 07 MAR 74 )

ARC 87-747 Q433C B C H F M V NOM. RM/L

PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 ALLRON = 5.000 BOFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 5.000 ELEV-R = -5.000

REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0350 SCALE

RUN NO. 409/ 0 RM/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	QMR	QME1	CXEO	QMET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.498	-0.854	-0.00870	.02390	.00510	.02900	-0.07820	-0.07320	-0.07510	-0.06960	.00380	254.70000
3.498	-0.395	-0.00750	.02180	.00490	.02670	-0.07670	-0.07440	-0.07320	-0.06870	.00220	254.70000
3.498	1.122	-0.00750	.01600	.00260	.01060	-0.07490	-0.07470	-0.07360	-0.06870	.00000	254.70000
3.498	3.132	-0.00470	.00770	-0.00070	.00700	-0.07180	-0.07510	-0.07260	-0.06950	-0.00250	254.70000
3.498	5.152	-0.00420	.00070	-0.00350	-0.00280	-0.07130	-0.07510	-0.07270	-0.06750	-0.00500	254.70000
3.498	7.170	-0.00080	-0.00610	-0.00650	-0.01260	-0.06930	-0.06700	-0.07180	-0.06360	.00790	254.70000
3.498	9.197	-0.00470	-0.01230	-0.00940	-0.02160	-0.06750	-0.06410	-0.06860	-0.05830	-0.00760	254.70000
3.498	12.230	-0.00850	-0.02120	-0.01470	-0.03580	-0.06670	-0.05980	-0.06520	-0.05330	-0.01290	254.70000
3.498	15.270	-0.00850	-0.03100	-0.01870	-0.04970	-0.06210	-0.05210	-0.06090	-0.04490	-0.02080	254.70000
3.498	18.320	-0.00760	-0.04270	-0.02360	-0.06630	-0.05630	-0.03530	-0.05460	-0.02940	-0.02590	254.70000
3.498	21.340	-0.00640	-0.05370	-0.02820	-0.08190	-0.04740	-0.02110	-0.04690	-0.01520	-0.03340	254.70000
3.498	24.380	-0.00870	-0.06690	-0.03480	-0.10170	-0.03670	-0.01730	-0.03480	-0.01050	-0.05170	254.70000
GRADIENT		.00087	-0.00403	-0.00150	-0.00553	.00152	-0.00005	.00068	-0.00005	-0.00150	.00000

ARC 07-747 QAS3C B C M F VA V NOM. RN/L

(BELGOS) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 4.4210 SQ.FT.      XREF = 32.3910 IN.  
 LREF = 14.2440 IN.      YREF = .0000 IN.  
 BREF = 25.1004 IN.      ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

### PARAMETRIC DATA

BETA	=	.000	ELEVON	=	-10.000
ALFON	=	5.000	BDFAP	=	-11.700
SPDRK	=	55.000	RDC A	=	.000
ELEV-L	=	-5.000	ELEV-R	=	-15.000

RUN NO. 416/0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CH4	CH2	CH3	CHET	CHUL	CHLL	CHLR	CHFR	Q
2.499	-0.166	-0.1350	-0.12050	-0.3120	-0.15200	-0.11830	-0.10310	-0.09390	-0.05970	325.25000
2.499	-0.056	-0.1160	-0.11650	-0.2975	-0.14200	-0.11610	-0.09730	-0.09500	-0.05970	325.25000
2.499	1.462	-0.01130	-0.10330	-0.09525	-0.12900	-0.11360	-0.09210	-0.09350	-0.06020	325.25000
2.499	3.418	-0.00640	-0.08590	-0.2030	-0.10560	-0.10920	-0.09880	-0.10770	-0.09350	325.25000
2.499	5.457	-0.00910	-0.06510	-0.05930	-0.08110	-0.10510	-0.09640	-0.10450	-0.09450	325.25000
2.499	7.487	-0.00770	-0.04830	-0.0170	-0.05990	-0.10060	-0.09330	-0.09730	-0.09000	325.25000
2.499	9.514	-0.00900	-0.03600	-0.00740	-0.04330	-0.09720	-0.09170	-0.09500	-0.08460	325.25000
2.499	12.590	-0.00390	-0.0260	-0.0050	-0.0340	-0.09300	-0.08810	-0.09200	-0.08110	325.25000
2.499	15.670	-0.00260	-0.01850	-0.00350	-0.0240	-0.09020	-0.08580	-0.08890	-0.07760	325.25000
2.499	18.670	-0.00190	-0.01450	-0.00140	-0.02110	-0.08700	-0.08310	-0.08500	-0.07790	325.25000
2.499	21.750	-0.00160	-0.01090	-0.00100	-0.01820	-0.07700	-0.07700	-0.07720	-0.07610	325.25000
2.499	24.790	-0.00150	-0.00900	-0.00090	-0.01630	-0.06870	-0.07030	-0.06790	-0.06840	325.25000
2.499	27.830	-0.001810	-0.00780	-0.00070	-0.0154	-0.05400	-0.02480	-0.05390	-0.06380	325.25000
GRADIENT	-0.0087	-0.00274	-0.00192	-0.00164	-0.00217	-0.00217	-0.00157	-0.00119	-0.00152	0.00000

RUN NO. 417/G RN/L = 1.74 GRADIENT INTERVAL = -5.0G/ 5.0G

MAC	ALPHA	CHR	CH-EI	CH-EO	CH-ET	CH-UL	CH-LL	CH-UR	CH-LR	CH-SF	Q
3.002	-0.611	-0.0820	-0.0400	-0.0240	-0.0930	-0.0930	-0.0830	-0.0960	-0.0270	-0.0170	291.45000
3.002	-1.144	-0.0520	-0.0330	-0.0240	-0.0480	-0.0570	-0.0870	-0.0640	-0.0200	-0.0000	291.45000
3.002	1.366	-0.0740	-0.0670	-0.0220	-0.0840	-0.0940	-0.0820	-0.0960	-0.0300	-0.0030	291.45000
3.002	3.360	-0.0660	-0.0460	-0.1780	-0.0730	-0.0920	-0.0840	-0.0930	-0.0780	-0.0220	291.45000
3.002	5.389	-0.0660	-0.0430	-0.1350	-0.0580	-0.0890	-0.0820	-0.0890	-0.0750	-0.0220	291.45000
3.002	7.425	-0.0640	-0.0300	-0.0930	-0.0360	-0.0860	-0.0760	-0.0860	-0.0790	-0.0170	291.45000
3.002	9.472	-0.0710	-0.0200	-0.0500	-0.0260	-0.0820	-0.0750	-0.0820	-0.0840	-0.0060	291.45000
3.002	12.480	-0.0620	-0.0100	-0.0050	-0.0100	-0.0770	-0.0720	-0.0780	-0.0650	-0.0080	291.45000
3.002	15.540	-0.0790	-0.0010	-0.0030	-0.0030	-0.0760	-0.0670	-0.0780	-0.0590	-0.0120	291.45000
3.002	18.600	-0.0680	-0.0120	-0.0080	-0.0090	-0.0670	-0.0520	-0.0680	-0.0450	-0.0290	291.45000
3.002	21.620	-0.0730	-0.0210	-0.0120	-0.0340	-0.0610	-0.0390	-0.0610	-0.0240	-0.04300	291.45000
3.002	24.690	-0.0730	-0.0330	-0.0170	-0.0480	-0.0590	-0.0290	-0.0490	-0.0160	-0.05300	291.45000
3.002	27.230	-0.0840	-0.0460	-0.0210	-0.0620	-0.0390	-0.0200	-0.0370	-0.0130	-0.06700	291.45000
64.000	0.0007	-0.0030	-0.0019	-0.0019	-0.0030	-0.0015	-0.0010	-0.0010	-0.0015	-0.0027	0.00000



DATE 15 JUL 74

TABULATED SOURCE DATA - ON53C

PAGE 173

ARC 87-747 ON53C B C M F W V NOM. RN/L

(BELD 6) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 24.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0350 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 7.500  
AILRON = -7.500 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = 15.000

RIN NO. 506/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	C <sub>L</sub>	C <sub>DR</sub>	CHEI	CHEO	CHEI	CHEO	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-1.609	.00100	-.05770	-.03210	-.08980	-.11860	-.09930	-.11650	-.09880	-.11510	-.09880	-.02530	318.20000
2.499	.130	.00180	-.06230	-.03480	-.09710	-.11720	-.09850	-.11510	-.09880	-.11450	-.09880	-.02530	318.20000
2.499	1.142	.00190	-.06360	-.03820	-.10680	-.11450	-.09690	-.11450	-.09880	-.11450	-.09880	-.02530	318.20000
2.499	3.166	.00270	-.08390	-.04520	-.12810	-.11050	-.09290	-.11050	-.09540	-.10660	-.09540	-.02200	318.20000
2.499	5.193	.00270	-.09690	-.05260	-.14950	-.10700	-.09100	-.10690	-.09380	-.10690	-.09380	-.02200	318.20000
2.499	7.225	.00340	-.11180	-.06300	-.17170	-.10180	-.08850	-.10270	-.09100	-.10270	-.09100	-.02120	318.20000
2.499	9.254	.00280	-.12510	-.06750	-.19270	-.09820	-.08630	-.09860	-.08870	-.10140	-.08870	-.02220	318.20000
2.499	12.280	.00370	-.14700	-.07850	-.22550	-.09330	-.08300	-.09470	-.08540	-.10320	-.08540	-.02220	318.20000
2.499	15.360	.00260	-.17170	-.09060	-.26230	-.09130	-.07940	-.09100	-.08220	-.10320	-.08220	-.02180	318.20000
2.499	18.410	.00220	-.19720	-.10380	-.30100	-.08710	-.07210	-.08790	-.07360	-.10320	-.07360	-.02180	318.20000
2.499	21.460	.00430	-.22520	-.11750	-.34270	-.07880	-.04990	-.08010	-.05290	-.10320	-.05290	-.02180	318.20000
2.499	24.520	.00410	-.25350	-.13100	-.38450	-.06850	-.03220	-.07050	-.03430	-.10320	-.03430	-.02180	318.20000
2.499	27.430	.00350	-.28160	-.14420	-.42590	-.05250	-.02130	-.05540	-.02180	-.10320	-.02180	-.02180	318.20000
GRADIENT		.00116	-.00669	-.00346	-.01015	.00217	.00173	.00152	.00126	.00162	.00126	.00162	.00000

FUN NO. 507/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	C <sub>L</sub>	C <sub>DR</sub>	CHEI	CHEO	CHEI	CHEO	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.000	-.661	.00360	-.04110	-.02360	-.06470	-.09810	-.08350	-.09710	-.08810	-.09710	-.08810	-.00060	285.50000
3.000	.089	.00490	-.04480	-.02580	-.07060	-.09650	-.08260	-.09690	-.08710	-.09690	-.08710	-.00060	285.50000
3.000	1.098	.00410	-.05080	-.02840	-.07920	-.09470	-.08180	-.09530	-.08530	-.09530	-.08530	-.00060	285.50000
3.000	3.119	.00660	-.06250	-.03470	-.09720	-.09200	-.07890	-.09340	-.08420	-.09340	-.08420	-.00060	285.50000
3.000	5.141	.00600	-.07480	-.04140	-.11620	-.09000	-.07700	-.09130	-.08170	-.09130	-.08170	-.00060	285.50000
3.000	7.161	.00630	-.08770	-.04850	-.13610	-.08670	-.07370	-.08900	-.07770	-.08900	-.07770	-.00060	285.50000
3.000	9.188	.00590	-.10030	-.05670	-.15660	-.08300	-.07100	-.08470	-.07510	-.08470	-.07510	-.01210	285.50000
3.000	12.230	.00580	-.12220	-.06790	-.19000	-.07900	-.06790	-.08060	-.07210	-.08060	-.07210	-.01650	285.50000
3.000	15.270	.00420	-.14760	-.08070	-.22840	-.07440	-.06320	-.07490	-.06690	-.07490	-.06690	-.02590	285.50000
3.000	18.320	.00420	-.17470	-.09480	-.26950	-.06930	-.05080	-.07020	-.05410	-.07020	-.05410	-.03400	285.50000
3.000	21.480	.00440	-.20290	-.10840	-.31140	-.06330	-.03170	-.06340	-.03600	-.06340	-.03600	-.04940	285.50000
3.000	24.410	.00490	-.23220	-.12220	-.35450	-.05120	-.02000	-.05220	-.02390	-.05220	-.02390	-.06260	285.50000
3.000	27.280	.00340	-.26510	-.13500	-.39500	-.04000	-.01690	-.03960	-.02070	-.03960	-.02070	-.07420	285.50000
GRADIENT		.00070	-.00571	-.00293	-.00864	.00159	.00121	.00104	.00103	.00104	.00103	-.00047	.00000

ARC 87-747 ON53C 8 C M F M V NOM. RM/L

(BEL006) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3510 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .5300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .500  
AILRON = -7.500 BDFLAP = -11.700  
SPBRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = 15.000

RUN NO. 508/ 0 RM/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHLR	CHBF	Q
3.496	-1.873	.00350	-.03060	-.01930	-.04980	-.07860	-.07290	-.07880	-.00030	249.10000
3.496	-1.159	.00360	-.03330	-.02070	-.05400	-.07810	-.07160	-.07780	-.00320	249.10000
3.496	.852	.00360	-.03950	-.02320	-.06220	-.07680	-.07140	-.07610	.00000	249.10000
3.496	2.866	.00740	-.04950	-.02890	-.07830	-.07360	-.07090	-.07540	-.00030	249.10000
3.496	4.076	.00900	-.06090	-.03490	-.09590	-.07240	-.06950	-.07530	-.00390	249.10000
3.496	6.900	.00930	-.07290	-.04190	-.11470	-.07170	-.06370	-.07130	-.00160	249.10000
3.496	8.923	.00760	-.10570	-.04940	-.13510	-.07000	-.06140	-.06710	-.00800	249.10000
3.496	11.950	.00560	-.10790	-.06130	-.16920	-.06650	-.05810	-.06200	-.01320	249.10000
3.496	14.990	.00410	-.13340	-.07340	-.20590	-.06260	-.04990	-.05350	-.01740	249.10000
3.496	18.030	.00660	-.16110	-.08550	-.24660	-.05730	-.03460	-.04070	-.02540	249.10000
3.496	21.060	.00500	-.18970	-.09890	-.28860	-.04880	-.02120	-.02490	-.03670	249.10000
3.496	24.110	.00360	-.21880	-.11310	-.33190	-.03780	-.01610	-.03790	-.05030	249.10000
3.496	26.980	.00620	-.24640	-.12620	-.37250	-.03030	-.01140	-.03060	-.06020	249.10000
GRADIENT		.00107	-.00530	-.00274	-.00809	.00116	.00050	.00059	-.00082	.00000

TABULATED SOURCE DATA - Q453C

DATE 15 JUL 74

(BEL007) ( 07 MAR 74 )

ARC 87-747 Q453C B C M F W V HIGH RN/L

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 AIRLON = .000 BDFLAP = 16.300  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

RUN NO. 424/ 0 RN/L = 3.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-617	-01270	-05510	-03360	-09270	-11640	-10480	-11330	-09510	-12620	843.50000
2.498	-150	-01280	-05670	-03500	-09670	-11530	-10420	-11230	-09440	-12910	843.50000
2.498	1.409	-01090	-07160	-03960	-11060	-11180	-10160	-10920	-09320	-13520	843.50000
2.498	3.475	-01010	-08440	-04650	-13100	-10710	-09850	-10490	-09050	-15230	843.50000
2.498	5.553	-01000	-09380	-05370	-15250	-10360	-09660	-10180	-08830	-16730	843.50000
2.498	7.625	-00920	-11240	-06080	-17320	-09910	-09400	-09800	-08590	-18230	843.50000
2.498	9.754	-00920	-12820	-06790	-19310	-09460	-09140	-09390	-08290	-20060	843.50000
2.498	12.840	-00920	-14480	-07930	-22420	-09070	-08750	-08990	-07920	-22590	843.50000
2.498	15.970	-01010	-17050	-09180	-26230	-08740	-08140	-08540	-07330	-27070	843.50000
2.498	19.110	-01050	-19380	-10480	-30060	-08380	-06790	-08180	-05940	-31150	843.50000
2.498	22.250	-00810	-22320	-11830	-34150	-07520	-04810	-07450	-04080	-35800	843.50000
2.498	25.410	-00720	-25090	-13140	-38230	-06280	-03040	-06190	-02410	-40390	843.50000
2.498	28.030	-00640	-27360	-14210	-41560	-04970	-02090	-04820	-01600	-43750	843.50000
GRADIENT		.00070	-00619	-00315	-00936	.00227	.00156	.00205	.00109	-.00624	.00000

RUN NO. 430/ 0 RN/L = 3.20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-651	-00720	-04470	-02630	-07200	-09350	-08740	-09470	-08090	-09110	614.60000
3.000	-178	-00670	-04780	-02760	-07540	-09480	-08680	-09490	-08000	-09360	614.60000
3.000	1.354	-00660	-05590	-03160	-08750	-09220	-08580	-09230	-07910	-10050	614.60000
3.000	3.393	-00630	-06760	-03800	-10570	-09150	-08400	-09060	-07760	-11030	614.60000
3.000	5.443	-00570	-07970	-04470	-12440	-08800	-08120	-08840	-07500	-12490	614.60000
3.000	7.493	-00540	-09190	-05160	-14350	-08450	-07740	-08500	-07150	-14270	614.60000
3.000	9.552	-00640	-10520	-05910	-16420	-08080	-07460	-08080	-06820	-16100	614.60000
3.000	12.640	-00560	-12630	-07060	-19690	-07590	-07150	-07650	-06520	-19510	614.60000
3.000	15.730	-00720	-15010	-08350	-23360	-07170	-06520	-07180	-05800	-23480	614.60000
3.000	18.930	-00660	-17610	-09650	-27260	-06730	-05020	-06750	-04330	-27820	614.60000
3.000	21.930	-00510	-20360	-10990	-31340	-05940	-03910	-05960	-02470	-32350	614.60000
3.000	25.030	-00580	-23260	-12370	-35630	-04800	-01980	-04670	-01530	-37020	614.60000
3.000	27.610	-00630	-25720	-13470	-39190	-03560	-01780	-03610	-01100	-40820	614.60000
GRADIENT		.00018	-00544	-00288	-00835	.00125	.00081	.00111	.00076	-.00471	.00000

ARC 87-747 0433C B C M F W V HIGH RN/L

(BELOOT) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0050 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 AILRON = .000 BDFLAP = 16.300  
 SPBRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 429/ 0 RN/L = 2.47 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.498	-8.78	-.00810	-.03570	-.02220	-.05780	-.07880	-.07620	-.07690	-.07000	-.06680	388.50000
3.498	-4.09	-.00510	-.03810	-.02310	-.06110	-.07700	-.07530	-.07710	-.07010	-.06260	388.50000
3.498	1.108	-.00640	-.04560	-.02680	-.07240	-.07470	-.07510	-.07430	-.06920	-.07360	388.50000
3.498	3.134	-.00380	-.05590	-.03260	-.08840	-.07240	-.07530	-.07340	-.07560	-.08440	388.50000
3.498	5.160	-.00330	-.06740	-.03890	-.10630	-.07170	-.07240	-.07240	-.06840	-.09680	388.50000
3.498	7.191	-.00330	-.07960	-.04600	-.12560	-.06970	-.06750	-.07050	-.06340	-.11490	388.50000
3.498	9.222	-.00170	-.09280	-.05330	-.14610	-.06760	-.06320	-.06950	-.05970	-.13480	388.50000
3.498	12.270	-.00600	-.11460	-.06530	-.17990	-.06600	-.06080	-.06660	-.05430	-.17140	388.50000
3.498	15.330	-.00740	-.13970	-.07770	-.21730	-.06170	-.05240	-.06120	-.04530	-.21020	388.50000
3.498	18.390	-.00430	-.16700	-.09030	-.25740	-.05560	-.03500	-.05590	-.03040	-.25650	388.50000
3.498	21.450	-.00510	-.19440	-.10310	-.29750	-.04750	-.02110	-.04830	-.01510	-.30530	388.50000
3.498	24.520	-.00480	-.22200	-.11670	-.33860	-.03590	-.01620	-.03560	-.01170	-.35250	388.50000
3.498	27.070	-.00490	-.24630	-.12830	-.37460	-.02840	-.01230	-.02750	-.00840	-.39380	388.50000
3.498	GRADIENT	.00076	-.00503	-.00261	-.00764	.00151	.00016	.00498	-.00010	-.00505	-.00000

TABULATED SOURCE DATA - 0453C

DATE 15 JUL 74

(08L008) (07 MAR 74)

ARC 87-747 0453C B C H F W V NOM. RV/L

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 ALLRON = .000 BOFLAP = 16.300  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1064 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

RUN NO. 423/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-1.570	-0.01320	-0.06140	-0.03480	-0.09620	-0.11930	-0.10510	-0.11470	-0.09650	-0.12470	322.20000
2.498	-1.112	-0.01090	-0.06430	-0.03630	-0.10070	-0.11730	-0.10430	-0.11490	-0.09570	-0.12620	322.20000
2.498	1.412	-0.01100	-0.07390	-0.04200	-0.11600	-0.11420	-0.10230	-0.11160	-0.09380	-0.13450	322.20000
2.498	3.435	-0.00810	-0.08780	-0.04930	-0.13700	-0.10920	-0.09880	-0.10810	-0.09170	-0.15010	322.20000
2.498	5.456	-0.00690	-0.10240	-0.05650	-0.15890	-0.10630	-0.09600	-0.10480	-0.09060	-0.15750	322.20000
2.498	7.490	-0.00730	-0.11740	-0.06400	-0.20250	-0.10170	-0.09360	-0.10060	-0.08740	-0.34990	322.20000
2.498	9.524	-0.00810	-0.13080	-0.07170	-0.20250	-0.09720	-0.09200	-0.09680	-0.08420	-0.20190	322.20000
2.498	12.570	-0.00840	-0.15320	-0.08310	-0.23630	-0.09420	-0.08840	-0.09510	-0.08100	-0.23460	322.20000
2.498	15.620	-0.00960	-0.17720	-0.09550	-0.27260	-0.09110	-0.08580	-0.09510	-0.07770	-0.28190	322.20000
2.498	18.680	-0.00950	-0.20380	-0.10880	-0.31260	-0.08800	-0.08300	-0.08610	-0.06800	-0.32830	322.20000
2.498	21.730	-0.00730	-0.23170	-0.12210	-0.35380	-0.07990	-0.07550	-0.07960	-0.04710	-0.50040	322.20000
2.498	24.790	-0.00680	-0.26100	-0.13630	-0.39740	-0.06980	-0.06330	-0.06930	-0.02930	-0.43030	322.20000
2.498	27.340	-0.00700	-0.28530	-0.14800	-0.43330	-0.05500	-0.02450	-0.05490	-0.01760	-0.46450	322.20000
GRADIENT		.00106	-.00658	-.00364	-.01019	.00243	.00155	.00175	.00118	-.00640	.00000

RUN NO. 426/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-1.613	-0.00680	-0.04570	-0.02700	-0.07270	-0.09750	-0.08790	-0.09710	-0.08150	-0.08660	291.20000
3.001	-1.154	-0.00420	-0.04810	-0.02780	-0.07590	-0.09580	-0.08670	-0.09730	-0.08100	-0.08490	291.20000
3.001	1.358	-0.00430	-0.05630	-0.03240	-0.08870	-0.09370	-0.08540	-0.09500	-0.07980	-0.09420	291.20000
3.001	3.382	-0.00470	-0.06840	-0.03890	-0.10730	-0.09150	-0.08360	-0.09280	-0.07770	-0.10770	291.20000
3.001	5.402	-0.00330	-0.08080	-0.04540	-0.12620	-0.08070	-0.07680	-0.09060	-0.07520	-0.12230	291.20000
3.001	7.432	-0.00450	-0.09370	-0.05310	-0.14680	-0.08620	-0.07680	-0.08790	-0.07070	-0.13890	291.20000
3.001	9.452	-0.00340	-0.10660	-0.06010	-0.16670	-0.07170	-0.07390	-0.08430	-0.06790	-0.15760	291.20000
3.001	12.500	-0.00500	-0.12610	-0.07240	-0.18340	-0.07760	-0.07200	-0.08020	-0.06450	-0.19320	291.20000
3.001	15.530	-0.00610	-0.14540	-0.08530	-0.20980	-0.07280	-0.06630	-0.07380	-0.05910	-0.23340	291.20000
3.001	18.580	-0.00590	-0.16210	-0.09950	-0.23980	-0.06810	-0.06220	-0.06960	-0.04480	-0.27570	291.20000
3.001	21.630	-0.00640	-0.18100	-0.11350	-0.26380	-0.06100	-0.05250	-0.06220	-0.02480	-0.32930	291.20000
3.001	24.680	-0.00530	-0.20320	-0.12730	-0.29320	-0.04980	-0.02170	-0.05040	-0.01580	-0.37470	291.20000
3.001	27.230	-0.00430	-0.22680	-0.13850	-0.32330	-0.03810	-0.01830	-0.03850	-0.01350	-0.41490	291.20000
GRADIENT		.00030	-.00568	-.00303	-.00871	.00141	.00101	.00116	.00094	-.00566	.00000



DATE 15 JUL 74

## TABULATED SOURCE DATA - OA53C

PAGE 178

ARC 87-747 OA53C B C H F W V NOM. RN/L

(BEL008) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEVON = 15.000  
AILRON = .000 BDFLAP = 16.300  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = 15.000 ELEV-R = 15.000

## PARAMETRIC DATA

RUN NO. 428/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.498	-1.860	-0.0790	-0.03480	-0.07750	-0.07440	-0.07580	-0.06820	-0.06530	253.40000
3.498	-1.396	-0.05700	-0.03740	-0.07630	-0.07450	-0.07570	-0.06810	-0.06750	253.40000
3.498	-1.190	-0.05800	-0.03700	-0.07600	-0.07400	-0.07590	-0.06730	-0.06280	253.40000
3.498	1.110	-0.04300	-0.04500	-0.07330	-0.07320	-0.07500	-0.06720	-0.11540	253.40000
3.498	3.135	-0.02600	-0.05510	-0.07180	-0.07420	-0.07410	-0.06930	-0.08400	253.40000
3.498	5.148	-0.01300	-0.06660	-0.07130	-0.07080	-0.07380	-0.06690	-0.09710	253.40000
3.498	7.173	-0.03340	-0.07970	-0.07040	-0.06630	-0.07170	-0.06170	-0.11450	253.40000
3.498	9.193	-0.02300	-0.09260	-0.06760	-0.06300	-0.07010	-0.05830	-0.12900	253.40000
3.498	12.220	-0.00830	-0.11430	-0.06610	-0.06110	-0.06660	-0.05230	-0.16950	253.40000
3.498	15.260	-0.00600	-0.14010	-0.06080	-0.05110	-0.06190	-0.04400	-0.21120	253.40000
3.498	18.300	-0.05590	-0.16840	-0.05550	-0.03510	-0.05600	-0.02870	-0.25000	253.40000
3.498	21.340	-0.05560	-0.19650	-0.04750	-0.02100	-0.04790	-0.01490	-0.29890	253.40000
3.498	24.380	-0.05580	-0.22610	-0.03600	-0.01650	-0.03610	-0.01060	-0.34670	253.40000
3.498	26.920	-0.05510	-0.25990	-0.02960	-0.01310	-0.02960	-0.00800	-0.38850	253.40000
GRADIENT		.00134	-0.00516	.00141	.00059	.00046	-0.00029	-0.00724	.00000

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS3C

PAGE 179

ARC 67-747 QAS3C B C M F W V LOW RN/L

(BELGOS) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEWON = 15.000  
 AIRLON = .000 BDFLAP = 16.300  
 SPDBRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 422/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-1.555	-0.1890	-0.5200	-0.0320	-0.0430	-0.1290	-0.1080	-0.1190	-0.0970	-0.1260	133.00000
2.498	-0.995	-0.01590	-0.55610	-0.0330	-0.0850	-0.1170	-0.1070	-0.1180	-0.0900	-0.1250	133.00000
2.498	1.414	-0.01300	-0.06710	-0.0390	-0.10690	-0.11510	-0.10470	-0.1180	-0.08850	-0.14440	133.00000
2.498	3.422	-0.01180	-0.08200	-0.04720	-0.12930	-0.11010	-0.10180	-0.11370	-0.08630	-0.14800	133.00000
2.498	5.431	-0.01390	-0.09850	-0.05560	-0.13400	-0.10620	-0.10110	-0.10870	-0.08480	-0.17040	133.00000
2.498	7.444	-0.01450	-0.11560	-0.06490	-0.18070	-0.10200	-0.09850	-0.10340	-0.08250	-0.18300	133.00000
2.498	9.462	-0.01400	-0.13070	-0.07300	-0.20370	-0.09940	-0.09320	-0.09850	-0.08000	-0.17760	133.00000
2.498	12.490	-0.01680	-0.15400	-0.08610	-0.24010	-0.09440	-0.07450	-0.09540	-0.07670	-0.19870	133.00000
2.498	15.510	-0.01800	-0.18010	-0.09990	-0.27990	-0.09230	-0.06010	-0.09200	-0.07460	-0.26880	133.00000
2.498	18.520	-0.01860	-0.20790	-0.11350	-0.32140	-0.08420	-0.06000	-0.08400	-0.06390	-0.31960	133.00000
2.498	21.540	-0.02540	-0.23750	-0.12840	-0.36590	-0.08290	-0.06600	-0.08000	-0.04300	-0.37390	133.00000
2.498	24.570	-0.01920	-0.27000	-0.14310	-0.41310	-0.07110	-0.04660	-0.07120	-0.02720	-0.41080	133.00000
2.498	27.090	-0.01570	-0.29480	-0.15400	-0.44870	-0.05320	-0.03150	-0.05580	-0.01330	-0.45080	133.00000
GRADIENT		.00162	-.00748	-.00384	-.01133	.00250	.00153	.00136	.00118	-.00610	.00000

RUN NO. 425/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-1.595	-0.1570	-0.03940	-0.02760	-0.06700	-0.09370	-0.08980	-0.09850	-0.07130	-0.07400	120.60000
3.001	-1.137	-0.01540	-0.04210	-0.02850	-0.07060	-0.09540	-0.08830	-0.09880	-0.06960	-0.08000	120.60000
3.001	1.367	-0.00880	-0.05270	-0.03240	-0.09510	-0.09070	-0.08570	-0.09850	-0.06920	-0.08390	120.60000
3.001	3.373	-0.01050	-0.06430	-0.03900	-0.10330	-0.08990	-0.08500	-0.09790	-0.06650	-0.08320	120.60000
3.001	5.384	-0.01170	-0.07710	-0.04690	-0.12400	-0.08930	-0.08320	-0.09630	-0.06440	-0.10720	120.60000
3.001	7.393	-0.01220	-0.09050	-0.05490	-0.14540	-0.08540	-0.07880	-0.09140	-0.06060	-0.10710	120.60000
3.001	9.406	-0.01170	-0.10520	-0.06290	-0.16800	-0.08020	-0.07830	-0.08790	-0.05890	-0.12160	120.60000
3.001	12.420	-0.01530	-0.12780	-0.07590	-0.20310	-0.07840	-0.07510	-0.08210	-0.05600	-0.12690	120.60000
3.001	15.440	-0.01670	-0.15260	-0.09020	-0.24280	-0.07290	-0.07060	-0.07700	-0.04980	-0.15590	120.60000
3.001	18.470	-0.01590	-0.18160	-0.10510	-0.28670	-0.06770	-0.05620	-0.07150	-0.03660	-0.18540	120.60000
3.001	21.480	-0.01380	-0.21100	-0.11910	-0.33020	-0.06080	-0.03820	-0.06560	-0.01960	-0.24310	120.60000
3.001	23.500	-0.00960	-0.23120	-0.12900	-0.36020	-0.05120	-0.02870	-0.05970	-0.01560	-0.28060	120.60000
3.001	27.020	-0.01260	-0.26720	-0.14540	-0.41260	-0.03690	-0.02150	-0.04200	-0.00380	-0.34690	120.60000
GRADIENT		.00151	-.00633	-.00289	-.00922	.00159	.00116	.00018	.00106	-.00194	.00000

ARC 87-747 ON53C B C M F M V LOW RV/L

(BEL009) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BRF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

BETA =  
AILRON =  
SPDRK =  
ELEV-L =

ELEVON = 15.000  
BDFLAP = 16.300  
RUDDER = .000  
ELEV-R = 15.000

## PARAMETRIC DATA

RUN NO. 427/ 0 RV/L = .74 GRADIENT INTERVAL = -5.01/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.498	-0.840	-0.1360	-0.02710	-0.02370	-0.03080	-0.07390	-0.07310	-0.07800	-0.05530	-0.03500	103.30000
3.498	-0.387	-0.0940	-0.03050	-0.02490	-0.05540	-0.07060	-0.07230	-0.07810	-0.05540	-0.03190	103.30000
3.498	1.126	-0.1180	-0.03870	-0.02840	-0.06710	-0.07160	-0.07230	-0.07710	-0.05500	-0.04430	103.30000
3.498	3.126	-0.1170	-0.04940	-0.03480	-0.08430	-0.06990	-0.07400	-0.07680	-0.05540	-0.06540	103.30000
3.498	5.135	-0.0990	-0.06040	-0.04050	-0.10090	-0.06790	-0.07020	-0.07400	-0.05420	-0.06380	103.30000
3.498	7.150	-0.1170	-0.07230	-0.04730	-0.11960	-0.06690	-0.06680	-0.07340	-0.04860	-0.07160	103.30000
3.498	9.150	-0.1390	-0.08760	-0.05630	-0.14390	-0.06480	-0.06380	-0.06940	-0.04540	-0.08090	103.30000
3.498	12.170	-0.1750	-0.10880	-0.06890	-0.17770	-0.06420	-0.06050	-0.06690	-0.04020	-0.09410	103.30000
3.498	15.180	-0.0500	-0.13500	-0.08230	-0.21730	-0.05670	-0.04990	-0.06440	-0.03230	-0.12220	103.30000
3.498	18.200	-0.1130	-0.16350	-0.09600	-0.25960	-0.05270	-0.03550	-0.05940	-0.01750	-0.15950	103.30000
3.498	21.210	-0.0490	-0.19380	-0.10960	-0.30340	-0.04660	-0.02490	-0.05220	-0.01440	-0.21240	103.30000
3.498	24.240	-0.0560	-0.22480	-0.12490	-0.34970	-0.03480	-0.01650	-0.04170	-0.00000	-0.26220	103.30000
3.498	26.750	-0.0910	-0.24940	-0.13650	-0.38590	-0.02970	-0.01140	-0.03200	0.00000	-0.30030	103.30000
3.498	GRADIENT	0.00004	-0.00554	-0.00278	-0.00834	0.00068	-0.00029	0.00034	-0.00000	-0.00822	0.00000

ARC 87-747 OAS3C B C H F W1 V NOM. RN/L

(BELA10) ( 06 SEP 74 )

## REFERENCE DATA

WREF = 2.4210 SQ.FT. WREF = 32.3010 IN.  
LREF = 14.2440 IN. WREF = .0000 IN.  
DREF = 20.1004 IN. WREF = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
AILRON = .000 EDFLAP = 16.300  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. D/O D RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	QEI	QEO	QET	QAL	QHL	QUR	QUR	QUR	QUR	QUR
2.499	-1.564	-0.01360	.02940	.00370	.03060	-.12010	-.10350	-.11510	-.09470	-.11100	327.20000	Q
2.499	.133	-0.01230	.02240	.00210	.02450	-.11810	-.10340	-.11540	-.09380	-.11490	327.20000	
2.499	1.406	-0.01150	.01330	.00110	.01220	-.11570	-.10140	-.11270	-.09290	-.12180	327.20000	
2.499	3.416	-0.01070	.00120	.00610	-.00720	-.11250	-.09890	-.10910	-.09150	-.13360	327.20000	
2.499	5.475	-0.01020	.01600	.01110	-.02710	-.10770	-.09550	-.10530	-.08910	-.15440	327.20000	
2.499	7.509	-0.00970	.02840	.01580	-.04410	-.10420	-.09410	-.10170	-.08680	-.17020	327.20000	
2.499	9.536	-0.01040	.03960	.02050	-.06010	-.09960	-.09090	-.09760	-.08250	-.19210	327.20000	
2.499	12.570	-0.01120	.05600	.02810	-.08410	-.09570	-.08770	-.09290	-.07930	-.22450	327.20000	
2.499	15.610	-0.01150	.07300	.03560	-.10850	-.09450	-.08440	-.09090	-.07640	-.26580	327.20000	
2.499	18.690	-0.01300	.09060	.04330	-.13400	-.09100	-.07610	-.08690	-.06720	-.31251	327.20000	
2.499	21.740	-0.00950	.11060	.05130	-.16180	-.08250	-.05220	-.07900	-.04590	-.35600	327.20000	
2.499	24.780	-0.00790	.13071	.05970	-.19040	-.07260	-.03480	-.07060	-.02890	-.40390	327.20000	
2.499	27.420	-0.00920	.14920	.06780	-.21700	-.05700	-.02390	-.05560	-.01610	-.43920	327.20000	
GRADIENT		.00070	-.00708	-.00247	-.00954	.00186	.00122	.00163	.00078	-.00567	.00000	

RUN NO. D/O D RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	QEI	QEO	QET	QAL	QHL	QUR	QUR	QUR	QUR	QUR
3.002	-1.606	-0.01020	.01580	.00470	.02050	-.09980	-.08740	-.09590	-.08110	-.08470	287.30000	Q
3.002	-1.146	-0.00900	.01340	.00420	.01760	-.09830	-.08720	-.09600	-.08050	-.08390	287.30000	
3.002	.085	-0.00830	.01190	.00240	.01420	-.09850	-.08720	-.09540	-.08200	-.08810	287.30000	
3.002	3.373	-0.00810	.00500	.00160	-.00560	-.09390	-.08280	-.09170	-.07690	-.10570	287.30000	
3.002	5.444	.00770	.01470	.00560	-.02030	-.09240	-.08100	-.08960	-.07400	-.12080	287.30000	
3.002	7.431	-0.01060	.02310	.01010	-.03330	-.08990	-.07760	-.08650	-.07040	-.14060	287.30000	
3.002	12.490	-0.00950	.04470	.02010	-.06480	-.08020	-.07230	-.07910	-.06390	-.19180	287.30000	
3.002	15.560	-0.00940	.05990	.02760	-.08740	-.07620	-.06590	-.07330	-.05920	-.23280	287.30000	
3.002	18.580	-0.00950	.07520	.03460	-.10980	-.07050	-.05290	-.06860	-.04520	-.27120	287.30000	
3.002	21.640	-0.00840	.09170	.04260	-.13430	-.06430	-.03140	-.06200	-.02490	-.31590	287.30000	
3.002	24.680	-0.00860	.11010	.05050	-.16160	-.05190	-.02170	-.04880	-.01620	-.36590	287.30000	
3.002	27.270	-0.00930	.12740	.05790	-.18530	-.04110	-.01790	-.03780	-.01200	-.40950	287.30000	
GRADIENT		.00036	-.00521	-.00153	-.00673	.00140	.00122	.00112	.00114	-.00556	.00000	



DATE 15 JUL 74

TABULATED SOURCE DATA - QMS5C

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ARC 87-747 QMS5C B C M F W V NOM. RN/L

(06LO11) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1504 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA =  
 ATLEON =  
 SPDRK =  
 ELEV-L =

ELEVON = .000  
 BDFLAP = -11.700  
 RUDDER = .000  
 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 395/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHRI	CHCO	CHET	CHIL	CHLL	CHLR	CHLF	Q
2.500	-1.566	-0.0670	0.02670	-0.05430	0.02240	-0.11910	-0.10420	-0.11570	0.02560	321.50000
2.500	-1.102	-0.0640	0.02180	-0.05560	0.01620	-0.11830	-0.10390	-0.11610	0.02400	321.90000
2.500	1.416	-0.0490	0.01140	-0.00920	0.02220	-0.11440	-0.10170	-0.11300	0.02270	321.90000
2.500	3.438	-0.0460	-0.0370	-0.01410	-0.01790	-0.11140	-0.09840	-0.10940	0.01900	321.90000
2.500	5.467	-0.0350	-0.01780	-0.01900	-0.03680	-0.10800	-0.09810	-0.10680	0.01400	321.90000
2.500	7.496	-0.0330	-0.0300	-0.02410	-0.05410	-0.10290	-0.09380	-0.10170	0.00780	321.90000
2.500	9.531	-0.0420	-0.04120	-0.02910	-0.07030	-0.09930	-0.09220	-0.09840	0.00530	321.90000
2.500	12.570	-0.0210	-0.0370	-0.03630	-0.09360	-0.09400	-0.08800	-0.09430	0.00480	321.90000
2.500	15.630	-0.00520	-0.07430	-0.04380	-0.11800	-0.09350	-0.08620	-0.09150	0.00220	321.90000
2.500	18.680	-0.00370	-0.09080	-0.05180	-0.14260	-0.08810	-0.07540	-0.08760	0.00100	321.90000
2.500	21.740	-0.00300	-0.11070	-0.05980	-0.17050	-0.08040	-0.05290	-0.07920	-0.04100	321.90000
2.500	24.800	-0.00100	-0.13100	-0.06850	-0.19950	-0.06980	-0.03500	-0.06990	-0.05940	321.90000
2.500	27.340	-0.00180	-0.14760	-0.07590	-0.22350	-0.05590	-0.02390	-0.05590	-0.06520	321.90000
GRADIENT		0.00055	-0.00744	-0.00243	-0.00990	0.00197	0.00148	0.00169	-0.00121	0.00000

RUN NO. 399/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHRI	CHCO	CHET	CHIL	CHLL	CHLR	CHLF	Q
3.002	-1.612	-0.0780	0.01610	-0.05080	0.01530	-0.09870	-0.08860	-0.09740	0.02720	289.30000
3.002	-1.156	-0.0750	0.01400	-0.05140	0.01260	-0.09800	-0.08750	-0.09720	0.02460	289.30000
3.002	0.081	-0.0840	0.01310	-0.05170	0.01140	-0.09660	-0.08500	-0.09440	0.03080	289.30000
3.002	1.361	-0.0710	0.00600	-0.04000	0.00210	-0.09490	-0.08630	-0.09450	0.02780	289.30000
3.002	3.382	-0.0720	-0.0410	-0.00750	-0.01160	-0.09410	-0.08360	-0.09230	0.02390	289.30000
3.002	5.405	-0.0770	-0.01380	-0.01130	-0.02510	-0.09140	-0.08130	-0.09020	0.02300	289.30000
3.002	7.432	-0.0720	-0.02230	-0.01540	-0.03770	-0.08790	-0.07690	-0.08750	0.02080	289.30000
3.002	9.468	-0.0580	-0.03120	-0.01980	-0.05110	-0.08360	-0.07270	-0.08390	0.01750	289.30000
3.002	12.500	-0.06810	-0.04420	-0.02620	-0.07040	-0.08030	-0.07170	-0.07970	0.00890	289.30000
3.002	15.540	-0.0780	-0.05830	-0.03310	-0.09130	-0.07380	-0.06500	-0.07280	0.00110	289.30000
3.002	18.580	-0.0720	-0.07400	-0.04050	-0.11440	-0.06930	-0.05110	-0.06870	-0.00670	289.30000
3.002	21.630	-0.01000	-0.09140	-0.04810	-0.13950	-0.06390	-0.03500	-0.06220	-0.02300	289.30000
3.002	24.680	-0.00820	-0.10910	-0.05670	-0.16580	-0.05180	-0.02130	-0.04940	-0.01550	289.30000
3.002	27.230	-0.00900	-0.12560	-0.06330	-0.18890	-0.04110	-0.01300	-0.03800	-0.04550	289.30000
GRADIENT		0.00020	-0.00512	-0.00171	-0.00682	0.00112	0.00098	0.00118	-0.00117	0.00000

ARC 87-747 QASXC B C N F M V MON. RNVL

(06L011) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 26.1054 IN. ZMRP = 11.2500 IN.  
 SCALE = .0350 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AIRLON = .000 BDFLAP = -11.700  
 SPBRK = .000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 403/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CHR	CHET	CHUL	CHLL	CHUR	CHLR	CHRF	Q
3.498	-0.0750	.01010	.00830	-.07910	-.07540	-.07610	-.07090	.03220	254.80000
3.498	-0.0690	.00850	.00660	-.07910	-.07430	-.07610	-.07040	.03370	254.80000
3.498	-0.0630	.00320	-.00130	-.07700	-.07230	-.07530	-.07090	.03310	254.80000
3.498	-0.0570	-.00330	-.01240	-.07360	-.07450	-.07440	-.07170	.02840	254.80000
3.498	-0.0510	-.01160	-.02250	-.07350	-.07040	-.07390	-.06960	.03340	254.80000
3.498	-0.0450	-.01530	-.02700	-.07290	-.06940	-.07360	-.06750	.03090	254.80000
3.498	-0.0390	-.02610	-.04370	-.07090	-.06270	-.07020	-.06120	.02240	254.80000
3.498	-0.0330	-.03700	-.06050	-.06790	-.06090	-.06620	-.05320	.01640	254.80000
3.498	-0.0270	-.05040	-.07930	-.06950	-.05140	-.06240	-.04750	.00850	254.80000
3.498	-0.0210	-.06430	-.09920	-.05750	-.03590	-.05380	-.03120	.00280	254.80000
3.498	-0.0150	-.07970	-.12180	-.05130	-.02670	-.04800	-.01790	-.01070	254.80000
3.498	-0.0090	-.09340	-.14480	-.03930	-.01660	-.03620	-.01360	-.01200	254.80000
3.498	-0.0030	-.11090	-.16760	-.03270	-.01180	-.02890	-.01030	-.02870	254.80000
3.498	.00140	-.03385	-.00525	-.00143	.00021	.00045	-.00026	-.00108	.00000

GRADIENT

DATE 15 JUL 74

WREF =	2.4215 SQ.FT.	WREF =	32.3016 IN.
LREF =	14.2440 IN.	YREF =	.0050 IN.
ZREF =	26.1504 IN.	ZREF =	11.2550 IN.
SCALE =	1000 SCALE		

BUH NO. 396/0 RN/L

### PARAMETRIC DATA

WACH	BETA	CMR	CMCI	CMCO
2.500	-4.654	-.09770	.01820	-.00866
2.500	-2.669	-.05470	.01920	-.00787
2.500	-2.669	-.05470	.02160	-.00666
2.500	-1.685	-.02310	.02160	-.00661
2.500	.302	-.03770	.02210	-.00532
2.500	1.325	.00860	.02260	-.00439
2.500	3.760	.04050	.02530	-.00344
2.500	5.432	.08350	.02910	-.00337
2.500	7.116	.13690	.03270	-.00330
2.500	8.800	.19030	.03680	-.00323

FIN NO. 457/0 FNL :

WACH	BETA	CHR	CHCI	CHCO
3.002	-4.629	-.12400	.00610	-.00441
3.052	-2.620	-.07540	.00917	-.00334
3.002	-1.606	-.03350	.0119C	-.00250
3.002	1.397	-.00740	.01240	-.00368
3.002	1.438	.01430	.01330	-.00266
3.002	3.521	.05070	.01580	-.00136
3.002	5.610	.10330	.01926	-.00090
3.002	7.325	.15700	.02235	-.00033
3.002	9.640	.02006	.00006	.00000

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WACH	BETA	QNR	QHEI	QCEO
3.498	-4.630	-12860	.0022C	-.0043I
3.498	-2.761	-.08180	.5034C	-.0038I
3.498	-.690	-.03360	.0060C	-.0029I
3.498	.351	-.05655	.0076C	-.0021I
3.498	1.427	-.01790	.0079C	-.0024I
3.498	3.572	.07020	.0109C	-.0121I
3.498	5.717	.11240	.0136C	-.0012I
3.498	7.468	.15030	.0164C	-.0004I
3.498	9.722	.18210	.0195C	0.0001I



DATE 15 JUL 74

## TABULATED SOURCE DATA - OASX

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ARC 27-747 OASX B C M F M V NOM. RN/L

08E013) (07 MAR 74)

## REFERENCE DATA

SREF : 2.4010 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 PREF = 26.1504 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA = 10.000 ELEVON = .000  
 ATLRON = .000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 397/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CNR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.500	-4.737	-1.0280	-0.04090	-0.03050	-0.07140	-0.12590	-0.12140	-0.07200	-0.06740	.01140	323.30000
2.500	-2.722	-0.06800	-0.04380	-0.03100	-0.07470	-0.11330	-0.11090	-0.02230	-0.07400	.00400	323.30000
2.500	-1.708	-0.02710	-0.04430	-0.03030	-0.07520	-0.10210	-0.09760	-0.09550	-0.08210	.00620	323.30000
2.500	-.295	-0.00600	-0.04370	-0.03070	-0.07430	-0.09780	-0.09140	-0.09310	-0.08790	.00700	323.30000
2.500	1.308	-0.01660	-0.04390	-0.03030	-0.07330	-0.09250	-0.08560	-0.13040	-0.09430	.00500	323.30000
2.500	3.325	-0.03830	-0.04030	-0.03060	-0.07090	-0.08390	-0.07530	-0.11110	-0.10640	.00820	323.30000
2.500	5.346	-0.09370	-0.03770	-0.03040	-0.06780	-0.07310	-0.06710	-0.11830	-0.11610	.00270	323.30000
2.500	7.359	-0.13050	-0.03430	-0.03040	-0.06470	-0.05640	-0.05370	-0.12510	-0.12360	.00450	323.30000
2.500	9.380	-0.18370	-0.03140	-0.03020	-0.06160	-0.05740	-0.05620	-0.13000	-0.12730	.00270	323.30000
2.500	GRADIENT	.02009	.00007	.00002	.00009	.00401	.00585	-0.00476	-0.00479	-0.00026	-0.00000

RUN NO. 401/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CNR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.002	-4.707	-1.0390	-0.03580	-0.02380	-0.05960	-0.10830	-0.10390	-0.05140	-0.05490	.01220	289.50000
3.002	-2.674	-0.06800	-0.03640	-0.02390	-0.06030	-0.09700	-0.09310	-0.05200	-0.05880	.01420	289.50000
3.002	-.617	-0.02680	-0.03570	-0.02360	-0.05930	-0.08890	-0.08010	-0.07600	-0.06620	.01190	289.50000
3.002	.394	-0.00410	-0.03470	-0.02360	-0.05820	-0.08250	-0.07310	-0.08170	-0.06990	.01280	289.50000
3.002	1.417	-0.01680	-0.03390	-0.02340	-0.05720	-0.07770	-0.06910	-0.08720	-0.07650	.01640	289.50000
3.002	3.468	-0.03770	-0.03210	-0.02380	-0.05590	-0.06610	-0.06280	-0.09570	-0.09070	.01170	289.50000
3.002	5.516	-0.09530	-0.02990	-0.02370	-0.05350	-0.05160	-0.05690	-0.10420	-0.09950	.01420	289.50000
3.002	7.561	-0.14790	-0.02800	-0.02390	-0.05190	-0.03810	-0.02840	-0.10840	-0.10590	.01500	289.50000
3.002	9.612	-0.19130	-0.02560	-0.02420	-0.04980	-0.02070	-0.01180	-0.11350	-0.11020	.01190	289.50000
3.002	GRADIENT	.01997	.00048	.00003	.00051	.00487	.00528	-0.00534	-0.00426	.00005	-0.00000

RUN NO. 405/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CNR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.498	-4.918	-1.2180	-0.02850	-0.01790	-0.04640	-0.09580	-0.08820	-0.03190	-0.03040	.02110	254.80000
3.498	-2.817	-0.07960	-0.02950	-0.0120	-0.04770	-0.08900	-0.08350	-0.04720	-0.04570	.02240	254.80000
3.498	-.686	-0.03200	-0.02860	-0.01620	-0.04690	-0.07780	-0.07040	-0.06000	-0.05620	.02430	254.80000
3.498	.354	-0.00560	-0.02920	-0.01820	-0.04630	-0.06970	-0.06180	-0.06780	-0.05510	.02240	254.80000
3.498	1.406	-0.02010	-0.02810	-0.01520	-0.04720	-0.06140	-0.05070	-0.07500	-0.06330	.02330	254.80000
3.498	3.521	-0.06190	-0.02740	-0.01950	-0.04690	-0.04010	-0.04880	-0.08460	-0.07620	.02240	254.80000
3.498	5.630	-0.11010	-0.02610	-0.01950	-0.04560	-0.03420	-0.03050	-0.09070	-0.08460	.01990	254.80000
3.498	7.745	-0.14030	-0.02420	-0.02320	-0.04430	-0.01990	-0.01200	-0.09340	-0.08670	.02050	254.80000
3.498	9.856	-0.16920	-0.02150	-0.02320	-0.04170	-0.01360	-0.00630	-0.09820	-0.09080	.02270	254.80000
3.498	GRADIENT	.02217	.00015	-0.00021	-0.00005	.00562	.00505	-0.00634	-0.00510	.00016	-0.00000

AEC 87-747 0453C B C M F W V NOM. RUN

(BELD14) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

ALPHA = 20.000 E EVON = .000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

PARAMETRIC DATA

RUN NO. 398/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.500	-4.733	.00430	-.09810	-.05410	-.15220	-.08780	-.02990	-.05370	-.06830	-.03560	325.10000
2.500	-2.725	.01490	-.10100	-.05470	-.15580	-.09480	-.03930	-.07650	-.07250	-.03090	325.10000
2.500	- 724	-.00050	-.10170	-.05360	-.15530	-.08680	-.05350	-.07890	-.06090	-.02940	325.10000
2.500	.236	-.00980	-.10140	-.05390	-.15530	-.08360	-.06210	-.08090	-.05590	-.03090	325.10000
2.500	1.299	-.01190	-.10190	-.05400	-.15590	-.08000	-.06520	-.08270	-.05060	-.02890	325.10000
2.500	3.321	-.02010	-.10180	-.05510	-.15700	-.07600	-.06980	-.09060	-.03510	-.03190	325.10000
2.500	5.346	-.00310	-.10150	-.05540	-.15690	-.05360	-.06450	-.08740	-.02760	-.03140	325.10000
2.500	7.368	.04460	-.10130	-.05560	-.15680	-.03230	-.07450	-.08460	-.03720	-.03510	325.10000
2.500	9.401	.08630	-.09480	-.05600	-.15580	-.02110	-.03140	-.08550	-.05330	-.03360	325.10000
GRADIENT		-.00383	-.00041	-.00006	-.00047	.00190	-.00536	-.00398	.00435	-.00047	-.00000

RUN NO. 402/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.002	-4.712	-.03300	-.08100	-.04460	-.12560	-.07070	-.03020	-.03050	-.03740	-.01830	289.50000
3.002	-2.663	.01270	-.08270	-.04580	-.12850	-.07390	-.02320	-.05560	-.03420	-.01500	289.50000
3.002	-.643	.00430	-.08450	-.04680	-.13120	-.06800	-.03440	-.06350	-.04320	-.01670	289.50000
3.002	.377	-.00530	-.08470	-.04710	-.13180	-.06610	-.04340	-.06410	-.03710	-.01800	289.50000
3.002	1.408	-.01040	-.08470	-.04680	-.13150	-.06360	-.04570	-.06630	-.03260	-.01750	289.50000
3.002	3.466	-.01620	-.08550	-.04680	-.13240	-.05670	-.05310	-.07190	-.02170	-.01720	289.50000
3.002	5.524	.02550	-.08570	-.04760	-.13330	-.03370	-.03890	-.06850	-.02970	-.01860	289.50000
3.002	7.579	.06710	-.08590	-.04920	-.13520	-.02060	-.02850	-.07050	-.04360	-.01690	289.50000
3.002	9.624	.09660	-.08580	-.05060	-.13630	-.01190	-.02020	-.07480	-.05420	-.02160	289.50000
GRADIENT		.00056	-.00055	-.00028	-.00093	.00185	-.00334	-.00461	.00256	-.00004	.00000

RUN NO. 406/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.922	-.00980	-.05790	-.03730	-.10590	-.06040	-.03100	-.06350	-.01810	-.00130	254.70000
3.496	-2.815	-.00800	-.07020	-.03880	-.10890	-.05990	-.01990	-.03690	-.03490	-.00600	254.70000
3.496	-.714	-.00340	-.07120	-.03840	-.10960	-.05580	-.02330	-.05110	-.02570	-.00410	254.70000
3.496	.336	-.00820	-.07220	-.03900	-.11120	-.05350	-.02640	-.05110	-.02670	-.00500	254.70000
3.496	1.402	-.00920	-.07290	-.03890	-.11180	-.05130	-.02980	-.05270	-.01920	-.00030	254.70000
3.496	3.516	-.00510	-.07280	-.04120	-.11490	-.03970	-.03790	-.05690	-.01470	-.00340	254.70000
3.496	5.635	.04120	-.07350	-.04190	-.11540	-.02050	-.02310	-.05670	-.02810	-.00410	254.70000
3.496	7.755	.06840	-.07340	-.04310	-.11650	-.01250	-.01410	-.05810	-.03680	-.00280	254.70000
3.496	9.873	.08970	-.07230	-.04420	-.11660	-.00630	-.01010	-.06300	-.04310	-.00280	254.70000
GRADIENT		.00036	-.00060	-.00037	-.00098	.00242	-.00107	-.00010	.00108	-.00015	-.00000



ARC 87-747 Q-53C B C M F W V LOW RN/L

(07 MAR 74)

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0530 IN.  
BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0375 SCALE

BETA = .000 ELEVON = .000  
AILRON = .000 BDFLAP = .000  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

PARAMETRIC DATA

RUN NO. 374/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHRF	Q
3.498	-1.835	-.00480	.00770	.00550	.01320	-.07460	-.07130	-.07680	-.06420	-.00980	98.64000
3.498	-1.376	.00130	.00830	.00610	.01440	-.07240	-.06720	-.07680	-.06420	-.00240	98.64000
3.498	1.121	.00730	.00240	.00330	.00570	-.06670	-.06620	-.07700	-.06330	.00490	98.64000
3.498	3.133	.00350	-.00270	.00220	-.00050	-.06520	-.06930	-.07570	-.06240	-.01140	98.64000
3.498	5.156	.00560	-.01150	-.00100	-.01250	-.06390	-.06580	-.07410	-.06120	-.01550	98.64000
3.498	7.128	-.00010	-.01650	-.00330	-.01990	-.06350	-.06400	-.07210	-.05530	-.01220	98.64000
3.498	9.161	-.00470	-.02360	-.00850	-.03210	-.06310	-.06230	-.06790	-.05280	-.02110	98.64000
3.498	12.180	-.00310	-.03480	-.01280	-.04760	-.06170	-.05650	-.06720	-.04790	-.03490	98.64000
3.498	15.180	-.00480	-.04870	-.01950	-.06820	-.05820	-.04950	-.06210	-.04080	-.04470	98.64000
3.498	18.200	-.00280	-.06170	-.02520	-.08690	-.05190	-.03580	-.05790	-.02710	-.06260	98.64000
3.498	21.220	-.00300	-.07730	-.03270	-.11010	-.04290	-.02460	-.05080	-.01370	-.08590	98.64000
3.498	24.220	.00350	-.09350	-.04060	-.13410	-.03130	-.01720	-.04110	-.01040	-.11990	98.64000
3.498	26.770	.00810	-.10890	-.04730	-.15620	-.02460	-.00920	-.03240	-.00950	-.14590	98.64000
GRADIENT		.00178	-.00284	-.00097	-.00381	.00236	.00020	.00026	.00048	-.00072	.00000

ARC 87-747 0453C B C M F W V NON. RNVL (BELD'6) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
AILRON = .000 BDFLAP = .000  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 381/ 0 RNVL = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

	WACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHIL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-0.00870	-0.369	-0.00870	-0.02660	-0.00250	-0.02910	-0.11800	-0.10260	-0.11690	-0.09500	-0.02000	330.10000
2.499	-0.00670	-0.098	-0.00670	-0.02360	-0.00110	-0.02470	-0.11650	-0.10170	-0.11710	-0.09440	-0.01970	330.10000
2.499	-0.00740	1.432	-0.00740	-0.01310	-0.00240	-0.01070	-0.11420	-0.09920	-0.11320	-0.09280	-0.02580	330.10000
2.499	-0.00610	3.477	-0.00610	-0.00140	-0.00710	-0.00850	-0.10900	-0.09660	-0.10950	-0.08990	-0.03360	330.10000
2.499	-0.00470	5.462	-0.00470	-0.01550	-0.01200	-0.02740	-0.10540	-0.09340	-0.10640	-0.08770	-0.03970	330.10000
2.499	-0.00440	7.490	-0.00440	-0.02770	-0.01710	-0.04480	-0.10120	-0.09120	-0.10220	-0.08570	-0.04680	330.10000
2.499	-0.00500	9.514	-0.00500	-0.03880	-0.02150	-0.06730	-0.09680	-0.08920	-0.09870	-0.08230	-0.05380	330.10000
2.499	-0.00520	12.590	-0.00520	-0.05310	-0.02920	-0.08430	-0.09300	-0.08590	-0.09410	-0.07960	-0.07130	330.10000
2.499	-0.00440	15.640	-0.00440	-0.07230	-0.03650	-0.10880	-0.09080	-0.08280	-0.09230	-0.07690	-0.09280	330.10000
2.499	-0.00510	18.750	-0.00510	-0.09010	-0.04440	-0.13450	-0.08680	-0.07280	-0.08770	-0.06670	-0.11400	330.10000
2.499	-0.00310	21.750	-0.00310	-0.10930	-0.05250	-0.16180	-0.07870	-0.04990	-0.08030	-0.04520	-0.14090	330.10000
2.499	-0.00190	24.830	-0.00190	-0.12980	-0.06140	-0.19110	-0.06880	-0.03230	-0.07370	-0.02860	-0.17240	330.10000
2.499	-0.00350	27.350	-0.00350	-0.14780	-0.06890	-0.21670	-0.05460	-0.02210	-0.05650	-0.01670	-0.19230	330.10000
GRADIENT	-0.00045		-0.00694	-0.00235	-0.00928	-0.00215	-0.00148		-0.00195	-0.00125	-0.00355	-0.00000

RUN NO. 378/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

	WACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHIL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-0.00360	-0.607	-0.00360	-0.01540	-0.00310	-0.01850	-0.09620	-0.08590	-0.09690	-0.08160	-0.01410	289.70000
3.001	-0.00260	-1.148	-0.00260	-0.01290	-0.00300	-0.01590	-0.09630	-0.08450	-0.09750	-0.08070	-0.01190	289.70000
3.001	1.345	3.001	-0.00540	-0.00610	-0.00080	-0.00690	-0.09340	-0.08560	-0.09320	-0.07840	-0.01640	289.70000
3.001	3.394	5.406	-0.00430	-0.00480	-0.00140	-0.00630	-0.09050	-0.08100	-0.09310	-0.07450	-0.01920	289.70000
3.001	7.431	9.456	-0.00470	-0.01360	-0.00510	-0.01880	-0.08880	-0.07910	-0.09140	-0.07170	-0.01890	289.70000
3.001	12.480	15.555	-0.00420	-0.0240	-0.01000	-0.03240	-0.08510	-0.07480	-0.08820	-0.06750	-0.03560	289.70000
3.001	18.590	21.640	-0.00530	-0.03110	-0.01400	-0.04510	-0.08210	-0.07250	-0.08440	-0.06400	-0.04390	289.70000
3.001	24.690	27.230	-0.00420	-0.04390	-0.02030	-0.06420	-0.07760	-0.06910	-0.08070	-0.05070	-0.05550	289.70000
3.001	27.230		-0.00470	-0.05840	-0.02700	-0.08540	-0.07290	-0.06390	-0.07530	-0.05720	-0.06650	289.70000
3.001			-0.00450	-0.07440	-0.03600	-0.11030	-0.06840	-0.05030	-0.06980	-0.04430	-0.09790	289.70000
3.001			-0.00310	-0.09120	-0.04360	-0.13480	-0.06160	-0.03090	-0.06330	-0.02470	-0.12180	289.70000
3.001			-0.00370	-0.10910	-0.05190	-0.16100	-0.04950	-0.02020	-0.05070	-0.01590	-0.14710	289.70000
3.001			-0.00330	-0.12560	-0.05860	-0.18410	-0.03970	-0.01780	-0.03990	-0.01400	-0.17030	289.70000
GRADIENT	-0.00035		-0.00501	-0.00118	-0.00235	-0.00621	-0.00151	-0.00105	-0.00107	-0.00188	-0.00159	-0.00000

ARC 07-747 0453C B C W F M V NOM. RV/L

(BELO16) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA =  
 AILRON =  
 SPD8RK =  
 ELEV-L =

ELEVON = .000  
 BDFLAP = .000  
 RUDDER = .000  
 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 375/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHRI	CHCO	CHCT	CHUL	CHLL	CHLR	CHBF	$\zeta$
3.498	-0.857	-0.00460	0.01010	0.00500	0.01500	-0.07430	-0.07170	-0.06680	-0.00910	246.50000
3.498	-0.397	-0.00365	0.00910	0.00430	0.01350	-0.07490	-0.07030	-0.06680	-0.00780	246.50000
3.498	1.121	-0.00150	0.00320	0.00220	0.00540	-0.07200	-0.07080	-0.06690	-0.01170	246.50000
3.498	3.132	0.00430	-0.00520	-0.00150	-0.00670	-0.06930	-0.07070	-0.07350	-0.01340	246.50000
3.498	5.154	0.00320	-0.01170	-0.00470	-0.01640	-0.06960	-0.06930	-0.06900	-0.02020	246.50000
3.498	7.165	0.00260	-0.01910	-0.00840	-0.02750	-0.06960	-0.06410	-0.06380	-0.02770	246.50000
3.498	9.196	0.00200	-0.02660	-0.01250	-0.03910	-0.06750	-0.06140	-0.06000	-0.03250	246.50000
3.498	12.220	-0.00190	-0.03640	-0.01770	-0.05410	-0.06370	-0.05880	-0.05490	-0.05150	246.50000
3.498	15.270	-0.00260	-0.04910	-0.02390	-0.07290	-0.06110	-0.04920	-0.04650	-0.06420	246.50000
3.498	18.300	0.00880	-0.06340	-0.03450	-0.09780	-0.05350	-0.05580	-0.04070	-0.08630	246.50000
3.498	21.340	0.00960	-0.07830	-0.04140	-0.11970	-0.04690	-0.01900	-0.02740	-0.10440	246.50000
3.498	24.390	-0.00780	-0.09470	-0.04260	-0.13730	-0.03610	-0.01460	-0.00760	-0.13070	246.50000
3.498	26.920	-0.00420	-0.10990	-0.04980	-0.15970	-0.02890	-0.01080	-0.00610	-0.15250	246.50000
GRADIENT		0.00218	-0.00390	-0.00162	-0.00551	0.00139	0.00011	-0.00099	-0.00131	0.00000

REFERENCE DATA

SREF = 2.4210 58. FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AIRLON = .000 BDPLAP = .000  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 382/ 0 RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHET	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-0.615	-0.0100	.02530	.00120	.02650	-0.11590	-0.10370	-0.11380	-0.09480	-0.02470	839.00000
2.499	-1.172	-0.01060	.02230	.00510	.02240	-0.11470	-0.10290	-0.11300	-0.09400	-0.02580	839.00000
2.499	1.408	-0.00990	.01160	-0.00380	.00780	-0.11150	-0.10080	-0.10980	-0.09270	-0.03050	839.00000
2.499	3.450	-0.00860	-0.00220	-0.00880	-0.01100	-0.10700	-0.09710	-0.10570	-0.08980	-0.03780	839.00000
2.499	5.553	-0.00810	-0.01620	-0.01360	-0.01100	-0.10290	-0.09540	-0.10240	-0.08770	-0.04530	839.00000
2.499	7.666	-0.00750	-0.02830	-0.01870	-0.04690	-0.09860	-0.09270	-0.08840	-0.08540	-0.05480	839.00000
2.499	9.672	-0.00780	-0.03910	-0.02360	-0.06270	-0.09490	-0.08570	-0.09460	-0.08240	-0.06140	839.00000
2.499	12.880	-0.00640	-0.05550	-0.03150	-0.08650	-0.09020	-0.08570	-0.09040	-0.07910	-0.07280	839.00000
2.499	16.000	-0.00920	-0.07340	-0.03890	-0.11230	-0.08730	-0.08020	-0.06580	-0.07250	-0.09680	839.00000
2.499	19.110	-0.01150	-0.08830	-0.04660	-0.13500	-0.08350	-0.06770	-0.08170	-0.05840	-0.11900	839.00000
2.499	22.280	-0.00740	-0.10740	-0.05460	-0.16200	-0.07450	-0.04660	-0.04700	-0.03970	-0.14480	839.00000
2.499	25.440	-0.00670	-0.12670	-0.06290	-0.18960	-0.06350	-0.02950	-0.06290	-0.02340	-0.17300	839.00000
2.499	28.070	-0.00460	-0.14360	-0.07010	-0.21370	-0.05000	-0.01940	-0.04920	-0.01560	-0.19430	839.00000
GRADIENT		.00057	-0.00677	-0.00246	-0.00922	.00216	.00160	.00200	.00119	-0.00323	.00000

RUN NO. 379/ 0 RN/L = 3.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHET	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-0.644	-0.00640	.01590	.00210	.01800	-0.09640	-0.08720	-0.09570	-0.08150	-0.01720	599.50000
3.001	-1.153	-0.00590	.01380	.00140	.01520	-0.09330	-0.08620	-0.09530	-0.08030	-0.01680	599.50000
3.001	1.368	-0.00640	.00560	-0.00110	.00450	-0.09300	-0.08580	-0.09280	-0.07950	-0.02150	599.50000
3.001	3.445	-0.00590	-0.00470	-0.00490	-0.00960	-0.09120	-0.08370	-0.09110	-0.07790	-0.02640	599.50000
3.001	5.425	-0.00580	-0.01370	-0.00890	-0.02260	-0.08890	-0.08150	-0.08900	-0.07560	-0.03240	599.50000
3.001	7.475	-0.00520	-0.02190	-0.01330	-0.03520	-0.08510	-0.07730	-0.08550	-0.07180	-0.03820	599.50000
3.001	9.575	-0.00620	-0.03090	-0.01790	-0.04880	-0.08200	-0.07420	-0.08130	-0.06870	-0.04680	599.50000
3.001	12.640	-0.00450	-0.04430	-0.02460	-0.06890	-0.07720	-0.07100	-0.07730	-0.06630	-0.05110	599.50000
3.001	15.750	-0.00470	-0.05850	-0.03160	-0.09000	-0.07240	-0.06530	-0.07280	-0.06010	-0.07970	599.50000
3.001	18.810	-0.00580	-0.07360	-0.03820	-0.11190	-0.06810	-0.06030	-0.06810	-0.04450	-0.10120	599.50000
3.001	21.910	-0.00450	-0.08990	-0.04570	-0.13560	-0.06070	-0.05030	-0.06070	-0.02570	-0.12180	599.50000
3.001	25.050	-0.00420	-0.10850	-0.05370	-0.16220	-0.04890	-0.01890	-0.04740	-0.01620	-0.14880	599.50000
3.001	27.660	-0.00420	-0.12480	-0.06070	-0.18550	-0.03630	-0.01680	-0.03680	-0.01210	-0.16750	599.50000
GRADIENT		.00006	-0.00509	-0.00172	-0.00681	.00125	.00078	.00117	.00080	-0.00241	.00000

DATE 15 JUL 74

TABULATED SOURCE DATA - OA53C

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ARC 87-747 OA53C B C M F W V HIGH RN/L

(BELO17) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
 AILRON = .000 BDFLAP = .000  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 376/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHP	CHCI	CHCO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.498	-1.869	-0.00870	-0.01040	.00440	.01480	-0.07850	-0.07570	-0.07670	-0.06880	-0.01020	384.10000
3.498	-1.397	-0.00750	.00930	.00390	.01330	-0.07730	-0.07490	-0.07670	-0.06800	-0.01070	384.10000
3.498	1.100	-0.00790	.00360	.00190	.00500	-0.07830	-0.07480	-0.07470	-0.06740	-0.01280	384.10000
3.498	3.121	-0.00560	-0.00390	-0.00130	-0.00520	-0.07290	-0.07470	-0.07370	-0.06840	-0.01730	384.10000
3.498	5.153	-0.00710	-0.01120	-0.00510	-0.01630	-0.07310	-0.07270	-0.07250	-0.06620	-0.02070	384.10000
3.498	7.002	-0.00520	-0.01840	-0.00890	-0.02730	-0.07100	-0.06710	-0.07100	-0.06190	-0.02740	384.10000
3.498	9.229	-0.00440	-0.02570	-0.01240	-0.03810	-0.06850	-0.06360	-0.06940	-0.05770	-0.03600	384.10000
3.498	12.260	-0.00550	-0.03650	-0.01770	-0.05420	-0.06560	-0.05970	-0.06710	-0.05280	-0.04710	384.10000
3.498	15.310	-0.00740	-0.04960	-0.02370	-0.07330	-0.06180	-0.05140	-0.06180	-0.04400	-0.06440	384.10000
3.498	18.410	-0.00460	-0.06370	-0.03050	-0.09420	-0.05650	-0.03480	-0.05660	-0.03020	-0.08430	384.10000
3.498	21.450	-0.00570	-0.07870	-0.03760	-0.11630	-0.04880	-0.02030	-0.04860	-0.01470	-0.10650	384.10000
3.498	24.550	-0.00900	-0.09440	-0.04480	-0.13960	-0.03610	-0.01570	-0.03580	-0.01100	-0.13250	384.10000
3.498	27.090	-0.00370	-0.10990	-0.05170	-0.16160	-0.02780	-0.01210	-0.02810	-0.00810	-0.15160	384.10000
GRADIENT		.00065	-0.00364	-0.00145	-0.00511	.00136	.00019	.00081	.00006	-0.00179	.00000



ARC 87-747 0453C B C H F WA Y LOW RN/L

BELOD18) ( 07 MAR 74 )

## REFERENCE DATA

SEF = 2.4210 SQ.FT. XRP = 32.3010 IN.  
LRF = 14.2440 IN. YRP = .0000 IN.  
BRF = 20.1004 IN. ZRP = 11.2500 IN.  
SCALE = .0000 SCALE

### PARAMETRIC DATA

BETA	=	.000	ELEVON	=	-20.000
ALIRON	=	.000	BCFLAP	=	-11.702
SPDRK	=	55.000	RUDER	=	.000
ELEV-L	=	-20.000	ELEV-R	=	-20.000

RUN NO. 386/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CHR	CNEI	CNEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-556	-01250	12820	03250	16070	-11730	-09230	-11940	-07770	04720	132.90000
2.499	-099	-01210	12470	03230	15700	-11570	-09070	-11940	-07490	05860	132.90000
2.499	1.411	-00920	11060	02780	13840	-11310	-02780	-11890	-07340	00840	132.90000
2.499	3.419	-01030	08320	02210	10730	-10680	-08940	-11430	-07150	05660	132.90000
2.499	5.435	-01060	06370	02220	08590	-10470	-08370	-11020	-06970	04840	132.90000
2.499	7.447	-01100	04500	02120	06620	-10050	-08210	-10420	-06750	04900	132.90000
2.499	9.456	-01210	03730	01700	05430	-09630	-08210	-10010	-06630	04530	132.90000
2.499	12.480	-01610	03690	00850	03940	-09290	-08280	-09640	-06320	03990	132.90000
2.499	15.520	-01620	01760	00380	02140	-09180	-08150	-09180	-06190	02360	132.90000
2.499	18.520	-02210	00310	00040	00260	-08240	-07560	-08720	-04860	00970	132.90000
2.499	21.540	-02880	-00790	00610	-01490	-07650	-06270	-08140	-02910	-00670	132.90000
2.499	24.570	-02910	-01040	01040	-02790	-06640	-04730	-07250	-01210	00260	132.90000
2.499	27.590	-03070	-02610	01400	-04020	-05520	-03550	-05700	00000	-02720	132.90000
2.499	GRADIENT	-00062	-01585	-02072	-01357	00256	00067	00128	00136	00129	00000

RUN NO. 389/ 0    RN/L = .75    GRADIENT INTERVAL = -5.00/ 5.00

Variable	ALPHA	CHR	CHE1	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
March	-1.602	-0.02250	0.08450	0.02820	0.11270	-0.09150	-0.08270	-0.10260	-0.06910	-0.05980	120.80000
April	-1.135	-0.00130	0.08090	0.02620	0.10710	-0.09195	-0.08200	-0.10310	-0.06910	-0.05790	120.80000
May	3.366	-0.00140	0.07030	0.02220	0.09250	-0.08750	-0.08750	-0.10100	-0.06780	-0.05790	120.80000
June	3.377	0.00020	0.05340	0.01793	0.07120	-0.08570	-0.08130	-0.09940	-0.06780	-0.05350	120.80000
July	5.382	-0.00180	0.03670	0.01560	0.05230	-0.08540	-0.07770	-0.09730	-0.06400	-0.05350	120.80000
August	7.392	-0.00130	0.02800	0.01030	0.03830	-0.08310	-0.07370	-0.09250	-0.06300	-0.05250	120.80000
September	9.404	-0.00120	0.02370	0.00420	0.02780	-0.08230	-0.07410	-0.09310	-0.06500	-0.04390	120.80000
October	15.440	-0.00790	0.00890	-0.00160	0.00730	-0.06870	-0.06650	-0.07790	-0.04940	-0.40360	120.80000
November	17.460	-0.00660	0.00240	-0.00300	0.00260	-0.06700	-0.05780	-0.07590	-0.04330	-0.2730	120.80000
December	18.460	-0.00670	0.00070	-0.00520	0.00440	-0.06350	-0.05420	-0.07290	-0.03810	-0.2730	120.80000
January	21.480	-0.00770	-0.00700	-0.00900	0.01620	-0.05600	-0.03900	-0.06620	-0.02110	-0.01260	120.80000
February	24.500	-0.00980	-0.01430	-0.01390	0.02810	-0.04540	-0.02750	-0.05450	-0.00850	-0.00500	120.80000
March	27.030	-0.00880	-0.01930	-0.01680	0.03610	-0.03550	-0.02170	-0.04360	-0.00480	-0.00600	120.80000
April	28.010	-0.00537	-0.00778	-0.00233	-0.01033	-0.01158	-0.00026	-0.00091	-0.0003	-0.00123	120.80000

ARC 07-747 0A53C B C M F W1 V LOW RN/L

(BEL018) ( 07 MAR 74 )

## REFERENCE DATA

SREF =	2.4210 SQ.FT.	YMRP =	32.3010 IN.
XREF =	14.2440 IN.	YMRP =	.0600 IN.
ZREF =	26.1954 IN.	ZMRP =	1.2350 IN.
SCALE =	.5350 SCALE		

### PARAMETRIC DATA

BETA	=	.000	ELEVON	=	-20.000
AILRON	=	.000	BCFLAP	=	-11.700
SPDRK	=	55.000	RUDDER	=	.000
ELEV-L	=	-20.000	ELEV-R	=	-20.000

RUN NO. 394/ 0 RN/L = .75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHIR	CHIEI	CHICO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.498	-0.841	0.01220	-0.05620	0.01970	0.07590	-0.06890	-0.07080	-0.08120	-0.07040	-0.06590	104.80000
3.498	-3.79	0.01120	0.05440	0.01790	0.07230	0.06930	-0.07060	-0.08060	-0.07040	-0.06720	104.80000
3.498	1.123	0.01600	0.04660	0.01500	0.06150	-0.06360	-0.07050	-0.07930	-0.07080	-0.07330	104.80000
3.498	3.129	0.01340	0.03470	0.09660	0.04430	-0.06600	-0.06930	-0.07910	-0.06960	-0.06880	104.80000
3.498	5.136	0.01350	0.02330	0.03500	0.02850	-0.06500	-0.06600	-0.07760	-0.06690	-0.07030	104.80000
3.498	7.131	0.01120	0.01670	0.00130	0.01790	-0.06300	-0.06360	-0.07520	-0.06260	-0.05890	104.80000
3.498	9.131	0.00870	0.01550	-0.00130	0.01420	-0.06040	-0.06440	-0.07240	-0.06110	-0.06350	104.80000
3.498	12.170	0.01030	0.01000	-0.00440	0.00560	-0.05910	-0.05480	-0.06940	-0.05480	-0.05660	104.80000
3.498	13.180	0.01540	0.00530	-0.00780	0.00230	-0.05250	-0.04610	-0.06690	-0.04740	-0.05350	104.80000
3.498	18.200	0.01480	-0.00000	-0.01040	0.01120	-0.04910	-0.03160	-0.06290	-0.03250	-0.04740	104.80000
3.498	21.210	0.01130	-0.00530	0.01220	-0.01800	-0.04150	-0.02120	-0.05440	-0.01960	-0.02830	104.80000
3.498	24.230	0.01440	-0.00980	0.01580	-0.02560	-0.02990	-0.01340	-0.0420	-0.01260	-0.02300	104.80000
3.498	26.750	0.01480	-0.01570	0.01960	-0.03330	-0.02540	-0.00920	-0.03610	-0.01340	-0.01770	104.80000
GRADIENT	0.00556	-0.00346	-0.00792	-0.00096	0.00036	0.00032	0.00036	0.00032	0.00032	0.00084	0.00000

ARC 87-747 Q433C B C M F M V NOM. RN/L

08E019) ( 07 MAR 74 )

## REFERENCE DATA

SEEF = 2.4219 SA.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0395 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -2.000  
 AILRON = .000 BCFAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -20.000 ELEV-R = -20.000

RUN NO. 387/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	a
2.499	-1.574	-0.5150	0.1490	0.0480	0.1970	-0.1180	-0.1010	-0.1150	-0.0850	0.0290	322.00000
2.499	-1.156	-0.1350	0.1470	0.0480	0.1900	-0.1170	-0.1010	-0.1150	-0.0830	0.0290	322.00000
2.499	1.407	-0.0150	0.1320	0.0450	0.1730	-0.1130	-0.1000	-0.1100	-0.0810	0.0240	322.00000
2.499	3.440	-0.0140	0.1110	0.0340	0.1450	-0.1090	-0.0960	-0.1080	-0.0850	0.0240	322.00000
2.499	5.462	-0.0120	0.0890	0.0290	0.1190	-0.1050	-0.0940	-0.1050	-0.0830	0.0220	322.00000
2.499	7.490	-0.0120	0.0740	0.0240	0.0970	-0.1010	-0.0930	-0.1010	-0.0810	0.0160	322.00000
2.499	9.528	-0.0120	0.0590	0.0190	0.0790	-0.0970	-0.0900	-0.0970	-0.0780	0.0150	322.00000
2.499	12.560	-0.0110	0.0420	0.0110	0.0540	-0.0870	-0.0840	-0.0900	-0.0750	0.0060	322.00000
2.499	15.630	-0.0100	0.0250	0.0070	0.0310	-0.0790	-0.0760	-0.0820	-0.0630	-0.0020	322.00000
2.499	18.690	-0.0140	0.0090	0.0030	0.0100	-0.0780	-0.0750	-0.0790	-0.0420	-0.0360	322.00000
2.499	21.740	-0.0130	0.0030	0.0030	0.0030	-0.0700	-0.0670	-0.0690	-0.0110	-0.0110	322.00000
2.499	24.800	-0.0130	0.0030	0.0030	0.0030	-0.0540	-0.0530	-0.0540	-0.0110	-0.0110	322.00000
2.499	27.340	-0.0120	0.0040	0.0030	0.0030	-0.0216	-0.0213	-0.0216	-0.0091	-0.0091	322.00000
2.499	GRADIENT	0.0071	0.0038	0.0037	0.0127	0.0021	0.0013	0.0017	0.0004	0.0004	0.0000

RUN NO. 390/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	a
3.002	-1.617	-0.0380	0.1060	0.0360	0.1430	-0.0950	-0.0860	-0.0970	-0.0810	0.0260	290.90000
3.002	-1.156	-0.0340	0.1020	0.0350	0.1380	-0.0950	-0.0850	-0.0970	-0.0800	0.0270	290.90000
3.002	1.364	-0.0210	0.0910	0.0320	0.1240	-0.0920	-0.0840	-0.0950	-0.0790	0.0400	290.90000
3.002	3.384	-0.0090	0.0760	0.0270	0.1040	-0.0910	-0.0820	-0.0930	-0.0790	0.0400	290.90000
3.002	5.400	-0.0050	0.0590	0.0220	0.0820	-0.0870	-0.0790	-0.0880	-0.0710	0.0190	290.90000
3.002	7.425	-0.0090	0.0490	0.0170	0.0660	-0.0810	-0.0720	-0.0840	-0.0680	0.0180	290.90000
3.002	9.451	-0.0120	0.0360	0.0130	0.0490	-0.0770	-0.0710	-0.0800	-0.0650	0.0060	290.90000
3.002	12.490	-0.0290	0.0250	0.0070	0.0310	-0.0720	-0.0640	-0.0740	-0.0590	0.0060	290.90000
3.002	15.540	-0.0340	0.0130	0.0030	0.0170	-0.0690	-0.0570	-0.0710	-0.0520	-0.0040	290.90000
3.002	18.590	-0.0360	0.0110	0.0030	0.0080	-0.0690	-0.0510	-0.0690	-0.0450	-0.0090	290.90000
3.002	21.630	-0.0440	0.0070	0.0040	0.0050	-0.0610	-0.0320	-0.0630	-0.0260	-0.0200	290.90000
3.002	24.690	-0.0440	0.0070	0.0040	0.0050	-0.0490	-0.0210	-0.0510	-0.0170	-0.0340	290.90000
3.002	27.230	-0.0290	0.0260	0.0120	0.0360	-0.0380	-0.0170	-0.0390	-0.0140	-0.0430	290.90000
3.002	GRADIENT	0.0095	0.0077	0.0078	0.0097	0.0017	0.0004	0.0004	0.0004	0.0035	0.0000

ARC 87-747 QAS3C B C M F M V NOM. RNVL

(08E019) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0500 IN.  
 BREF = 20.1054 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AILRON = .000 RDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -20.000 ELEV-R = -20.000

RUN NO. 393/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CMR	CHET	CHCO	CHIL	CHLL	CHUR	CHLF	CHRF	q
3.498	-0.861	.00000	.07950	.03020	-.07370	-.07600	-.07840	-.07340	.02440	263.10000
3.498	-0.399	.00030	.07780	.02940	-.07580	-.07460	-.07810	-.07260	.02680	263.10000
3.498	1.111	.00460	.06680	.02820	-.07220	-.07360	-.07760	-.07280	.02560	263.10000
3.498	3.132	.00640	.05370	.02070	-.06990	-.07530	-.07650	-.07500	.02660	263.10000
3.498	5.147	.00720	.04120	.01580	-.06950	-.07190	-.07570	-.07350	.02530	263.10000
3.498	7.172	.00500	.02880	.01180	-.06950	-.06680	-.07410	-.06720	.01950	263.10000
3.498	9.191	.00590	.02290	.00870	-.06650	-.06370	-.07200	-.06420	.01560	263.10000
3.498	12.230	.00110	.01530	.00470	-.06500	-.06080	-.06870	-.05830	.01340	263.10000
3.498	15.280	.00160	.00340	.00090	-.06080	-.05110	-.06330	-.05020	.00430	263.10000
3.498	18.300	.00400	-.00210	-.00160	-.05280	-.03450	-.05760	-.03380	.00000	263.10000
3.498	21.340	.00410	-.00690	-.00480	-.04610	-.01990	-.05010	-.02000	-.0130	263.10000
3.498	24.390	.00350	-.01310	-.00880	-.03420	-.01560	-.03780	-.01550	-.02080	263.10000
3.498	26.930	.00510	-.01930	-.01180	-.02750	-.01130	-.03150	-.01250	-.03110	263.10000
3.498	GRADIENT	.00171	-.00661	-.00239	.00157	.00010	.00044	-.00046	.00030	.00000

AIRC 07-747 QAS3C B C M F W3 V HIGH RW/L

DECLASS ( 07 MAR 76 )

**REFERENCE DATA**

SEEF = 2.4210 SQ.FT.      WREP = 32.3010 IN.  
LEEF = 14.2440 IN.      YREP = .0000 IN.  
OREF = 20.1004 IN.      ZREP = 11.2900 IN.  
SCALE = .0390 SCALE

### PARAMETRIC DATA

BETA	=	.000	ELEVON	=	-20.000
AILRON	=	.000	SOFLAP	=	-11.750
SPDRK	=	55.000	RUDER	=	.000
ELEV-L	=	-20.000	ELEV-R	=	-20.000

RUN NO. 188/0 RN/L = 3.96 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

RUN NO. 391/0 RVL = 3.21 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CHR	CHRI	CHEO	CHET	CHUL	CHLL	CHLR	CHRF	Q
3.002	-0.654	-0.0610	0.0930	0.0378	0.1370	-0.0960	-0.0870	-0.0957	-0.0120	604.70000
3.002	-0.554	-0.0636	0.0930	0.0366	0.1316	-0.0952	-0.0850	-0.0955	-0.0120	604.70000
3.002	-1.188	-0.0650	0.0930	0.0360	0.1175	-0.0926	-0.0850	-0.0950	-0.0120	604.70000
3.002	3.393	-0.0580	0.0750	0.0288	0.0957	-0.0670	-0.0360	-0.0100	0.0130	604.70000
3.002	4.437	-0.0550	0.0670	0.0249	0.0760	-0.0839	-0.0190	-0.0756	0.0250	604.70000
3.002	1.490	-0.0590	0.0470	0.0210	0.0670	-0.0840	-0.0780	-0.0850	0.0150	604.70000
3.002	9.546	-0.0520	0.0360	0.0157	0.0540	-0.0800	-0.0730	-0.0810	0.0340	604.70000
3.002	12.640	-0.0450	0.0260	0.0107	0.0367	-0.0760	-0.0710	-0.0770	-0.0360	604.70000
3.002	15.730	-0.0480	0.0180	0.0061	0.0159	-0.0710	-0.0650	-0.0720	-0.0340	604.70000
3.002	18.820	-0.0480	0.0210	0.0140	0.0360	-0.0670	-0.0490	-0.0670	-0.0240	604.70000
3.002	21.910	-0.0480	0.0080	0.0026	0.0150	-0.0590	-0.0060	-0.0400	-0.0250	604.70000
3.002	25.030	-0.0340	0.0180	0.0075	0.0250	-0.0480	-0.0190	-0.0470	-0.0160	604.70000
3.002	27.620	-0.0450	0.0250	0.0110	0.0350	-0.0350	-0.0120	-0.0360	-0.0110	604.70000
GRACIENT	0.0004	-0.0078	0.0111	0.0132	0.0081	0.0120	0.0085	0.0112	-0.0100	604.70000

UNCLASSIFIED SOURCE DATA - OASIS

DATE 13 11 74

09E1027) ( 07 MAR 74 )

ARC 07-747 0A53C B C M F M Y HIGH RN/L

### PARAMETRIC DATA

BETA	=	.000	ELEVON	=	-20.000
AIRLON	=	.000	BOFLAP	=	-11.700
SPOBEX	=	55.000	RUDDER	=	.000
ELEV-L	=	-20.000	ELEV-R	=	-20.000

### REFERENCE DATA

SEEF = 2.422 J SQ.FT.      WEP = 32,5010 IN.  
LEEF = 14.2410 IN.      WEP = .0000 IN.  
BEEF = 20.1004 IN.      ZWEP = 11.2500 IN.  
SCALE = .0300 SCALE

RUN NO. 392/0 RM/L = 2.48 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CHR	CH#1	CH#2	CH#T	CH#L	CH#R	CH#F	a
3.496	-0.879	-0.00170	0.07900	0.03260	0.11140	-0.07610	-0.07540	-0.07250	396.100000
3.496	-0.411	0.00010	0.07620	0.03150	0.07800	-0.07670	-0.07530	-0.07230	396.100000
3.496	1.103	0.00000	0.06500	0.02860	0.09450	-0.07390	-0.07420	-0.07400	396.100000
3.496	3.133	0.00070	0.05690	0.02350	0.08050	-0.07190	-0.07430	-0.07340	396.100000
3.496	5.163	0.00200	0.04430	0.01690	0.06320	-0.07070	-0.07220	-0.07130	396.100000
3.496	7.190	0.00250	0.03250	0.01490	0.04750	-0.06920	-0.06710	-0.06660	396.100000
3.496	9.227	0.00160	0.02500	0.01190	0.03690	-0.06740	-0.06390	-0.06280	396.100000
3.496	12.280	0.00060	0.01610	0.00770	0.02380	-0.06390	-0.05150	-0.04880	396.100000
3.496	15.340	0.00130	0.00450	0.00420	0.01250	-0.06110	-0.03530	-0.03440	396.100000
3.496	18.390	0.00090	0.00150	0.00110	0.00510	-0.05460	-0.03500	-0.01890	396.100000
3.496	21.460	0.00050	0.00050	0.00020	0.00080	-0.05260	-0.02060	-0.01550	396.100000
3.496	24.530	0.00110	0.00040	0.00070	0.00160	-0.03520	-0.01560	-0.01270	396.100000
3.496	27.080	0.00090	0.00010	0.00080	0.00120	-0.02660	-0.01170	-0.00850	396.100000
3.496	29.630	0.00044	0.00053	0.00224	0.00118	-0.00886	0.00008	0.00001	0.00000

## REFERENCE DATA

WHEF :	2.4210 SQ.FT.	WHEP =	32.5910 IN.
LAZY :	14.2410 IN.	WHEP =	.0000 IN.
BEEF :	20.1004 IN.	WHEP =	11.2500 IN.
SCALE :	.0300 SCALE		

### PARAMETRIC DATA

BETA	=	.000	ELEVON	=	-10.000
ALFON	=	10.000	BDFAP	=	-11.700
SPDRK	=	55.000	RUDER	=	.000
ELEV-L	=	.000	ELEV-R	=	-20.000

RUN NO. 303/0 RM/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

NAME	ALPHA	RA	DEC	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	CH11	CH12	CH13	CH14	CH15	CH16	CH17	CH18	CH19	CH20	CH21	CH22	CH23	CH24	CH25	CH26	CH27	CH28	CH29	CH30	CH31	CH32	CH33	CH34	CH35	CH36	CH37	CH38	CH39	CH40	CH41	CH42	CH43	CH44	CH45	CH46	CH47	CH48	CH49	CH50	CH51	CH52	CH53	CH54	CH55	CH56	CH57	CH58	CH59	CH60	CH61	CH62	CH63	CH64	CH65	CH66	CH67	CH68	CH69	CH70	CH71	CH72	CH73	CH74	CH75	CH76	CH77	CH78	CH79	CH80	CH81	CH82	CH83	CH84	CH85	CH86	CH87	CH88	CH89	CH90	CH91	CH92	CH93	CH94	CH95	CH96	CH97	CH98	CH99	CH100	CH101	CH102	CH103	CH104	CH105	CH106	CH107	CH108	CH109	CH110	CH111	CH112	CH113	CH114	CH115	CH116	CH117	CH118	CH119	CH120	CH121	CH122	CH123	CH124	CH125	CH126	CH127	CH128	CH129	CH130	CH131	CH132	CH133	CH134	CH135	CH136	CH137	CH138	CH139	CH140	CH141	CH142	CH143	CH144	CH145	CH146	CH147	CH148	CH149	CH150	CH151	CH152	CH153	CH154	CH155	CH156	CH157	CH158	CH159	CH160	CH161	CH162	CH163	CH164	CH165	CH166	CH167	CH168	CH169	CH170	CH171	CH172	CH173	CH174	CH175	CH176	CH177	CH178	CH179	CH180	CH181	CH182	CH183	CH184	CH185	CH186	CH187	CH188	CH189	CH190	CH191	CH192	CH193	CH194	CH195	CH196	CH197	CH198	CH199	CH200	CH201	CH202	CH203	CH204	CH205	CH206	CH207	CH208	CH209	CH210	CH211	CH212	CH213	CH214	CH215	CH216	CH217	CH218	CH219	CH220	CH221	CH222	CH223	CH224	CH225	CH226	CH227	CH228	CH229	CH230	CH231	CH232	CH233	CH234	CH235	CH236	CH237	CH238	CH239	CH240	CH241	CH242	CH243	CH244	CH245	CH246	CH247	CH248	CH249	CH250	CH251	CH252	CH253	CH254	CH255	CH256	CH257	CH258	CH259	CH260	CH261	CH262	CH263	CH264	CH265	CH266	CH267	CH268	CH269	CH270	CH271	CH272	CH273	CH274	CH275	CH276	CH277	CH278	CH279	CH280	CH281	CH282	CH283	CH284	CH285	CH286	CH287	CH288	CH289	CH290	CH291	CH292	CH293	CH294	CH295	CH296	CH297	CH298	CH299	CH300	CH301	CH302	CH303	CH304	CH305	CH306	CH307	CH308	CH309	CH310	CH311	CH312	CH313	CH314	CH315	CH316	CH317	CH318	CH319	CH320	CH321	CH322	CH323	CH324	CH325	CH326	CH327	CH328	CH329	CH330	CH331	CH332	CH333	CH334	CH335	CH336	CH337	CH338	CH339	CH340	CH341	CH342	CH343	CH344	CH345	CH346	CH347	CH348	CH349	CH350	CH351	CH352	CH353	CH354	CH355	CH356	CH357	CH358	CH359	CH360	CH361	CH362	CH363	CH364	CH365	CH366	CH367	CH368	CH369	CH370	CH371	CH372	CH373	CH374	CH375	CH376	CH377	CH378	CH379	CH380	CH381	CH382	CH383	CH384	CH385	CH386	CH387	CH388	CH389	CH390	CH391	CH392	CH393	CH394	CH395	CH396	CH397	CH398	CH399	CH400	CH401	CH402	CH403	CH404	CH405	CH406	CH407	CH408	CH409	CH410	CH411	CH412	CH413	CH414	CH415	CH416	CH417	CH418	CH419	CH420	CH421	CH422	CH423	CH424	CH425	CH426	CH427	CH428	CH429	CH430	CH431	CH432	CH433	CH434	CH435	CH436	CH437	CH438	CH439	CH440	CH441	CH442	CH443	CH444	CH445	CH446	CH447	CH448	CH449	CH450	CH451	CH452	CH453	CH454	CH455	CH456	CH457	CH458	CH459	CH460	CH461	CH462	CH463
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RUN NO. 384/ C RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	CH-R	CH-EI	CH-EO	CH-ET	CH-L	CH-L	CH-LR	CH-FC	3
3.001	-0.612	-0.0690	0.1000	-0.4270	0.13260	-0.08780	-0.09640	-0.08100	-0.2220	288.00000
3.001	-0.612	-0.0670	0.1000	-0.4210	0.14690	-0.09760	-0.09680	-0.08370	-0.2220	288.00000
3.001	1.366	-0.0675	0.0930	-0.3830	0.13150	-0.09460	-0.09420	-0.07930	-0.1917	288.00000
3.001	3.387	-0.0710	0.0760	-0.3400	0.11170	-0.09220	-0.09240	-0.07720	-0.1598	288.00000
3.001	5.416	-0.0590	0.0610	-0.2690	0.09960	-0.09130	-0.09140	-0.07350	-0.1040	288.00000
3.001	7.431	-0.0470	0.0490	-0.2000	0.07550	-0.08670	-0.08710	-0.0690	-0.0510	288.00000
3.001	9.438	-0.0420	0.0460	-0.2090	0.07000	-0.08320	-0.08260	-0.0730	-0.0470	288.00000
3.001	12.500	-0.0310	0.0310	-0.1590	0.04660	-0.07930	-0.07940	-0.0610	-0.0000	288.00000
3.001	14.500	-0.0190	0.0190	-0.1180	0.02950	-0.07420	-0.07240	-0.05810	-0.0140	288.00000
3.001	18.500	-0.0090	0.0070	-0.0790	0.00860	-0.06360	-0.05930	-0.0440	-0.0040	288.00000
3.001	21.600	-0.0070	0.0070	-0.0680	0.00490	-0.06350	-0.06150	-0.0490	-0.0030	288.00000
3.001	24.600	-0.0050	-0.0190	-0.0110	-0.0170	-0.05140	-0.04990	-0.0420	-0.0020	288.00000
3.001	27.220	-0.0070	-0.0240	-0.0040	-0.00850	-0.04100	-0.03860	-0.0340	-0.0010	288.00000
3.001	30.000	-0.0070	-0.0070	-0.0020	-0.0015	-0.03160	-0.03115	-0.0096	-0.0027	288.00000

DATE 15 JUL 74

TABULATED SOURCE DATA - Q453C

PAGE 201

ARC 87-747 Q453C B C M F W V NON. RN/L

(08L021) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1054 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEWON = -10.000  
 ILRON = 10.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = -20.000

PARAMETRIC DATA

RUN NO. 385/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHLR	CHLF	Q
3.498	-0.859	-0.1150	.08120	.04180	.12300	-.07860	-.07480	-.06430	.02740	252.20000
3.498	-0.398	-0.01290	.07950	.04140	.12090	-.07890	-.07360	-.06260	.02650	252.20000
3.498	1.113	-0.01220	.06880	.03760	.10650	-.07610	-.07460	-.06330	.02580	252.20000
3.498	3.137	-.00850	.05550	.03300	.08840	-.07460	-.07270	-.06460	.02520	252.20000
3.498	5.151	-.00820	.04180	.02790	.06960	-.07240	-.07080	-.06170	.02390	252.20000
3.498	7.171	-.00820	.02880	.02380	.05260	-.07140	-.06630	-.05730	.01910	252.20000
3.498	9.189	-.00890	.02350	.02100	.04450	-.06990	-.06240	-.05320	.01720	252.20000
3.498	12.230	-.01330	.01520	.01660	.03170	-.06680	-.06150	-.04850	.00640	252.20000
3.498	15.260	-.01310	.00570	.01280	.01850	-.06310	-.05180	-.04500	.00190	252.20000
3.498	18.300	-.01090	-.00170	.01000	.00820	-.05640	-.03500	-.02430	-.00760	252.20000
3.498	21.340	-.01180	-.00670	.00620	-.00050	-.05040	-.02010	-.01030	-.01590	252.20000
3.498	24.380	-.01210	-.01270	.00320	-.00960	-.03760	-.01540	-.00490	-.02260	252.20000
3.498	26.910	-.01210	-.01890	-.00040	-.01920	-.03150	-.01230	-.00310	-.03890	252.20000
GRADIENT		.00087	-.00657	-.00227	-.00883	.00111	.00038	-.00024	-.00049	.00000



ARC 87-747 QAS3C B C W F M V NON. RN/L

(BEL022) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.5010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = -20.000  
 AIRLON = 20.000 BDELAP = -11.700  
 SPBRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = -40.000

## PARAMETRIC DATA

RUN NO. 513/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHLL	CHUR	CHLR	CHBF	Q
2.498	-.621	-.00020	.00000	.00000	.00700	-.11850	-.09900	-.10040	.00860	325.50000
2.498	.116	.00160	.00000	.00000	.00000	-.11600	-.09810	-.09880	.00690	325.50000
2.498	1.133	.00120	.00000	.00000	.00000	-.11430	-.09720	-.09780	.00640	325.50000
2.498	3.165	.00230	.00000	.00000	.00000	-.11050	-.09320	-.09540	.00150	325.50000
2.498	5.184	.00420	.00000	.00000	.00000	.10570	-.09140	-.09390	-.00220	325.50000
2.498	7.218	.00290	.00000	.00000	.00000	-.10220	-.08950	-.09130	-.02440	325.50000
2.498	9.247	.00310	.00000	.00000	.00000	-.09820	-.08610	-.08820	-.00890	325.50000
2.498	12.300	.00340	.00000	.00000	.00000	-.09380	-.08300	-.08500	-.01950	325.50000
2.498	15.350	.00310	.00000	.00000	.00000	-.09090	-.07960	-.08170	-.02660	325.50000
2.498	18.410	.00030	.00000	.00000	.00000	-.08790	-.07350	-.07390	-.04240	325.50000
2.498	21.460	.00120	.00000	.00000	.00000	-.08070	-.03200	-.05280	-.05500	325.50000
2.498	24.520	.00310	.00000	.00000	.00000	-.06790	-.03270	-.03370	-.07200	325.50000
2.498	27.400	.00330	.00000	.00000	.00000	-.05360	-.02090	-.02150	-.08460	325.50000
GRADIENT		.00053	.00000	.00000	.00000	.00203	.00154	.00126	-.00182	.00000

RUN NO. 512/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHLL	CHUR	CHLR	CHBF	Q
3.001	-.635	.00280	.00000	.00000	.00000	-.09770	-.08330	-.08690	-.00030	290.20000
3.001	.075	.00420	.00000	.00000	.00000	-.09610	-.08200	-.08550	.00110	290.20000
3.001	1.086	.00540	.00000	.00000	.00000	-.09360	-.08040	-.08390	.00360	290.20000
3.001	3.113	.00620	.00000	.00000	.00000	-.09140	-.07910	-.08300	-.00110	290.20000
3.001	5.127	.00760	.00000	.00000	.00000	-.08810	-.07590	-.08020	-.00110	290.20000
3.001	7.153	.00650	.00000	.00000	.00000	-.08670	-.07240	-.07690	-.00360	290.20000
3.001	9.175	.00510	.00000	.00000	.00000	-.08290	-.07060	-.07330	-.01000	290.20000
3.001	12.220	.00590	.00000	.00000	.00000	-.07890	-.06760	-.07190	-.01610	290.20000
3.001	15.270	.00430	.00000	.00000	.00000	-.07360	-.06270	-.06520	-.02360	290.20000
3.001	18.310	.00500	.00000	.00000	.00000	-.06780	-.05100	-.05340	-.03160	290.20000
3.001	21.350	.00290	.00000	.00000	.00000	-.06280	-.03300	-.03400	-.04500	290.20000
3.001	24.400	.00490	.00000	.00000	.00000	-.05020	-.01920	-.02250	-.05690	290.20000
3.001	27.280	.00340	.00000	.00000	.00000	-.03830	-.01600	-.01880	-.06970	290.20000
GRADIENT		.00085	.00000	.00000	.00000	.00167	.00109	.00100	-.00028	.00000

PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
AILRON = 20.000 BDFLAP = -11.700  
SPDBRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = -40.000

REFERENCE DATA

SRFP = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
LRFP = 14.2440 IN. YMRP = .0000 IN.  
BRFP = 28.1004 IN. YMRP = 11.2500 IN.  
SCALE = .0300 SCALE

RUN NO. 511/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CNET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-1.879	.00030	.00000	.00000	.00000	-.07920	-.07080	-.07670	-.07370	.00000	249.10000
3.496	-1.170	.00320	.00000	.00000	.00000	-.07690	-.06980	-.07630	-.07350	.00100	249.10000
3.496	.838	.00410	.00000	.00000	.00000	-.07560	-.06910	-.07530	-.07360	.00030	249.10000
3.496	2.862	.00760	.00000	.00000	.00000	-.07240	-.06910	-.07450	-.07460	.00320	249.10000
3.496	4.875	.00870	.00000	.00000	.00000	-.07170	-.06690	-.07390	-.07340	.00100	249.10000
3.496	6.892	.00860	.00000	.00000	.00000	-.07030	-.06290	-.07250	-.06910	-.00290	249.10000
3.496	8.919	.00760	.00000	.00000	.00000	-.06780	-.06040	-.07040	-.06530	-.00640	249.10000
3.496	11.950	.00560	.00000	.00000	.00000	-.06580	-.05670	-.06740	-.06070	-.00900	249.10000
3.496	14.520	.00360	.00000	.00000	.00000	-.06230	-.05060	-.06290	-.05360	-.01480	249.10000
3.496	14.990	.00400	.00000	.00000	.00000	-.06140	-.04920	-.06200	-.05240	-.01450	249.10000
3.496	18.020	.00540	.00000	.00000	.00000	-.05610	-.03390	-.05660	-.03880	-.02450	249.10000
3.496	21.060	.00320	.00000	.00000	.00000	-.04940	-.01960	-.04920	-.02290	-.03700	249.10000
3.496	24.100	.00500	.00000	.00000	.00000	-.03620	-.01370	-.03730	-.01750	-.04410	249.10000
3.496	27.010	.00560	.00000	.00000	.00000	-.02920	-.01030	-.02960	-.01550	-.05830	249.10000
3.496	GRADIENT	.00139	.00000	.00000	.00000	.00128	.00057	.00049	-.00003	.00026	.00000

ARC 87-747 CASSC B C M F M V NOM. RN/L

(08E023) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LRFP = 14.2440 IN. YMRP = .0000 IN.  
 BRFP = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -40.000  
 AIRRON = .000 BDFLAP = -11.700  
 SPD8R = 55.000 RUDDER = .000  
 ELEV-L = -40.000 ELEV-R = -40.000

RUN NO. 523/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHET	CHL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-.522	-.00290	.23650	.05200	-.09840	-.11560	-.09900	.00800	320.00000
2.499	1.181	-.00120	.21990	.05240	-.09740	-.11490	-.09800	.00000	320.00000
2.499	1.192	-.00630	.20810	.04550	-.09660	-.11370	-.09720	.00680	320.00000
2.499	3.212	.00100	.18190	.04020	-.09320	-.11000	-.09550	.00300	320.00000
2.499	5.244	.00100	.13680	.04400	-.09150	-.10630	-.09300	-.00500	320.00000
2.499	7.279	.00240	.10010	.03100	-.10200	-.10200	-.09130	-.00480	320.00000
2.499	9.307	.00280	.08760	.04700	-.09910	-.08890	-.08830	-.01210	320.00000
2.499	12.350	.00240	.08930	.03540	-.09440	-.08270	-.08450	-.01760	320.00000
2.499	15.410	.00550	.05760	.02960	-.09190	-.08000	-.08160	-.02410	320.00000
2.499	16.460	-.00080	.04410	.02040	-.08810	-.07330	-.07360	-.04290	320.00000
2.499	21.520	.00420	.02860	.01880	-.08180	-.05160	-.05340	-.06880	320.00000
2.499	24.570	.00280	.01750	.01420	-.06990	-.03220	-.03420	-.06880	320.00000
2.499	27.450	-.00090	.01150	.00890	-.05400	-.02140	-.02060	-.08540	320.00000
GRADIENT		.00096	-.01403	-.00346	-.01749	.00138	.00091	-.00057	-1.00000

RUN NO. 524/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHET	CHL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-.560	.00050	.16140	.05510	-.08440	-.09690	-.08640	.00220	287.60000
3.001	1.142	.00210	.15330	.05480	-.08320	-.09690	-.08550	.00060	287.60000
3.001	1.147	.00170	.14390	.05240	-.08220	-.09460	-.08450	.00390	287.60000
3.001	3.161	.00300	.12280	.05110	-.08040	-.09260	-.08350	-.00110	287.60000
3.001	5.200	.00290	.09320	.05050	-.07810	-.09100	-.08080	-.00470	287.60000
3.001	7.219	.00410	.07670	.04980	-.07350	-.08830	-.07700	-.00500	287.60000
3.001	9.236	.00330	.06530	.04800	-.07020	-.08400	-.07340	-.00840	287.60000
3.001	12.290	.00210	.06360	.04210	-.06870	-.07980	-.07090	-.01420	287.60000
3.001	15.320	.00210	.04300	.03800	-.06380	-.07430	-.06540	-.02090	287.60000
3.001	18.360	.00250	.02710	.03500	-.06140	-.06970	-.05340	-.02900	287.60000
3.001	21.410	.00070	.01920	.03030	-.06370	-.06370	-.03440	-.04270	287.60000
3.001	24.470	.00000	.01270	.02520	-.03270	-.05170	-.02260	-.05360	287.60000
3.001	27.340	-.00160	.00690	.01960	-.02080	-.03840	-.01800	-.06920	287.60000
GRADIENT		.00055	-.01028	-.00114	-.01142	.00104	.00075	-.00071	.00000

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TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F W V NOM. RN/L

(BELO23) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 50.FT. YMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1064 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEWON = -40.000  
AILRON = .000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -40.000 ELEV-R = -40.000

PARAMETRIC DATA

RUN NO. 925/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHRI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHRF	Q
3.496	-8.00	-0.0330	.10860	.07410	.18270	-.08030	-.07260	-.07630	-.07330	.00100	250.90000
3.496	-1.11	.00000	.11720	.06200	.17920	-.07800	-.07170	-.07650	-.07310	.00030	250.90000
3.496	.836	.00110	.10840	.05760	.16600	-.07680	-.07050	-.07560	-.07290	-.00060	250.90000
3.496	2.919	.00340	.09010	.05710	.14730	-.07400	-.07120	-.07480	-.07240	.00290	250.90000
3.496	4.949	.00540	.06920	.05610	.12430	-.07250	-.06690	-.07390	-.07290	.00030	250.90000
3.496	6.961	.00370	.05770	.05855	.11620	-.07240	-.06510	-.07230	-.06820	-.00030	250.90000
3.496	8.979	.00260	.05150	.05100	.10250	-.07060	-.06160	-.06990	-.06500	-.00030	250.90000
3.496	10.010	.00100	.04000	.04740	.09340	-.06690	-.05920	-.06750	-.05950	-.00030	250.90000
3.496	15.040	-.00050	.03310	.04590	.07900	-.06290	-.05080	-.06190	-.05100	-.00060	250.90000
3.496	18.090	.00320	.02140	.04270	.06410	-.05710	-.03500	-.05690	-.03840	-.00430	250.90000
3.496	21.120	-.00020	.01900	.03590	.05150	-.05090	-.02170	-.04390	-.02260	-.00330	250.90000
3.496	24.170	-.00040	.01120	.02960	.03970	-.03360	-.01670	-.03760	-.01780	-.00400	250.90000
3.496	27.070	-.00040	.00590	.02320	.02870	-.03180	-.01320	-.02940	-.01520	-.00630	250.90000
3.496	GRADIENT	.00135	-.00794	-.00236	-.01029	.00129	.00052	.00045	.00000	.00011	.00000

ARC 87-747 0455C B C H F W V NOM. RN/L

(BEL024) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1504 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
 AIRLON = .000 BDFLAP = -11.700  
 SPD8RK = 25.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 467/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-1.15	-.00400	.02270	-.00100	.02170	-.05100	-.04310	-.04860	-.04160	.00230	315.70000
2.498	1.404	-.00320	.01230	-.00320	.00710	-.04940	-.04240	-.04770	-.04090	.00000	315.70000
2.498	3.436	-.00350	-.00230	-.01010	-.01240	-.04800	-.04040	-.04590	-.03900	-.16990	315.70000
2.498	5.454	-.00230	-.01630	-.01480	-.03110	-.04580	-.03870	-.04400	-.03820	-.00990	315.70000
2.498	7.493	-.00330	-.02870	-.01960	-.04830	-.04430	-.03770	-.04220	-.03650	-.01270	315.70000
2.498	9.515	-.00340	-.04030	-.02460	-.06490	-.04230	-.03690	-.04080	-.03500	-.01700	315.70000
2.498	12.570	-.00270	-.05540	-.03170	-.08720	-.04080	-.03470	-.03890	-.03290	-.01950	315.70000
2.498	15.610	-.00320	-.07180	-.03900	-.11090	-.04070	-.03220	-.03850	-.03130	-.03170	315.70000
2.498	18.660	-.00410	-.08890	-.04720	-.13610	-.03800	-.02600	-.03680	-.02300	-.04250	315.70000
2.498	21.730	-.00440	-.10840	-.05530	-.16360	-.03500	-.01600	-.03310	-.01360	-.06180	315.70000
2.498	24.780	-.00380	-.12860	-.06400	-.19250	-.02860	-.00880	-.02730	-.00620	-.07640	315.70000
2.498	27.330	-.00380	-.14570	-.07140	-.21720	-.02190	-.00480	-.02050	-.00230	-.08760	315.70000
2.498	GRADIENT	.00013	-.00705	-.00255	-.00960	.00084	.00077	.00077	.00074	-.05042	-.00000

RUN NO. 471/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-1.614	-.00230	.01610	.00060	.01670	-.04210	-.03390	-.03880	-.03500	.00000	285.60000
3.001	-1.156	-.00080	.01360	.00000	.01360	-.04030	-.03350	-.03850	-.03460	.00250	285.60000
3.001	1.358	-.00320	.00580	-.00250	.00330	-.04030	-.03400	-.03800	-.03300	.00450	285.60000
3.001	3.381	-.00220	-.00440	-.00590	-.01030	-.03920	-.03290	-.03800	-.03190	-.00030	285.60000
3.001	5.402	-.00470	-.01360	-.01030	-.02390	-.03860	-.03150	-.03640	-.02900	-.00310	285.60000
3.001	7.420	-.00370	-.02230	-.01420	-.03650	-.03550	-.02890	-.03440	-.02640	-.00620	285.60000
3.001	9.456	-.00490	-.03080	-.01840	-.04930	-.03490	-.02790	-.03290	-.02530	-.01080	285.60000
3.001	12.500	-.00460	-.04390	-.02490	-.06880	-.03330	-.02630	-.03130	-.02360	-.01990	285.60000
3.001	15.540	-.00430	-.05850	-.03220	-.09070	-.03080	-.02250	-.03030	-.01880	-.02930	285.60000
3.001	18.590	-.00350	-.07380	-.03950	-.11330	-.02930	-.01580	-.02850	-.01300	-.03380	285.60000
3.001	21.620	-.00360	-.09060	-.04700	-.13760	-.02600	-.00880	-.02500	-.00260	-.04590	285.60000
3.001	24.680	-.00360	-.10810	-.05520	-.16330	-.02030	-.00470	-.01880	-.00260	-.05960	285.60000
3.001	27.220	-.00230	-.12420	-.06200	-.18620	-.01500	-.00360	-.01400	-.00240	-.07070	285.60000
3.001	GRADIENT	-.00019	-.00512	-.00164	-.00676	.00057	.00019	.00019	.00079	-.00020	-.00000

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TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C N F W V NOM. RN/L

(BELO24) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 24.1004 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

BETA =  
AILRO. =  
SPDRK =  
ELEV-L =

.000 ELEVON = .000  
.000 BDFLA. = -11.700  
25.000 RUDDER = .000  
.000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 475/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-8.53	.03750	.01040	.00140	.01180	-.03000	-.02750	-.06640	-.02860	-.00300	241.40000
3.496	-3.95	-.00360	.01000	.00070	.01080	-.02860	-.02860	-.02640	-.02750	.00000	241.40000
3.496	1.114	-.00110	.00440	-.00130	.00310	-.02780	-.02700	-.02650	-.02710	.00000	241.40000
3.496	3.126	.00050	-.00430	-.00390	-.00820	-.02750	-.02590	-.02620	-.02780	-.00130	241.40000
3.496	5.147	-.00180	-.01140	-.00750	-.01900	-.02820	-.02440	-.02530	-.02550	-.00070	241.40000
3.496	7.169	-.00290	-.01830	-.01120	-.02950	-.02800	-.02330	-.02510	-.02330	-.00590	241.40000
3.496	9.192	-.00230	-.02470	-.01510	-.03980	-.02690	-.02060	-.02420	-.02100	-.00490	241.40000
3.496	12.220	-.00370	-.03590	-.02050	-.05650	-.02560	-.01990	-.02370	-.01810	-.01470	241.40000
3.496	15.260	-.00640	-.04930	-.02690	-.07630	-.02660	-.01530	-.02170	-.01370	-.01960	241.40000
3.496	18.290	-.00430	-.06310	-.03270	-.09580	-.02400	-.00940	-.02090	-.00820	-.02590	241.40000
3.496	21.330	-.00230	-.07730	-.03940	-.11670	-.02030	-.00340	-.01770	-.00370	-.03480	241.40000
3.496	24.380	-.00240	-.08390	-.04740	-.14130	-.01470	-.00280	-.01250	-.00270	-.04880	241.40000
3.496	26.910	-.00220	-.10870	-.05440	-.16310	-.01290	-.00270	-.00930	-.00290	-.05890	241.40000
GRADIENT		-.00571	-.00380	-.00132	-.00514	.00051	.00054	.00668	.00010	-.00062	.00000

ARC 87-747 Q453C B C M F M V NOM. RN/L

08E025) ( 07 MAR 74 )

## REFERENCE DATA

SRF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BRF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .5300 SCALE

ALPHA = .000 ELEVON = .000  
 AILRON = .000 BOFLAP = -11.700  
 SPDRK = 25.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 468/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHET	CHL	CHLL	CHUR	CHLR	CNSF	Q
2.498	-4.647	-.06160	.01910	-.00410	-.05780	-.03150	-.02940	.00150	319.10000
2.498	-2.673	-.03280	.01970	-.00340	-.05120	-.04110	-.03510	.00280	319.10000
2.498	-.692	-.01570	.02180	-.00260	-.04650	-.04600	-.03830	.00480	319.10000
2.498	.302	-.00560	.02250	-.00180	-.05180	-.04840	-.04110	.00350	319.10000
2.498	1.330	.00360	.02300	-.00100	-.04140	-.05050	-.04390	.00530	319.10000
2.498	3.382	.02390	.02570	.00010	-.03370	-.05550	-.05000	.00200	319.10000
2.498	5.431	.04970	.02930	.00070	-.03610	-.06200	-.05640	.00050	319.10000
2.498	7.143	.08140	.03300	.00100	-.02670	-.06900	-.06450	.00000	319.10000
GRADIENT	.01035	.00082	.00054	.00137	.00249	-.00287	-.00248	.00017	.00000

RUN NO. 472/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHET	CHL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-4.630	-.06840	.00810	-.00380	-.04690	-.01810	-.01830	-.00030	287.80000
3.001	-2.613	-.04230	.00950	-.00260	-.04250	-.02510	-.02630	.00060	287.80000
3.001	-.604	-.01730	.01100	-.00110	-.03760	-.03370	-.03160	.00050	287.80000
3.001	.402	-.00310	.01240	-.00070	-.03490	-.03790	-.03430	.00000	287.80000
3.001	1.437	.00790	.01330	-.00000	-.03250	-.04050	-.03620	.00280	287.80000
3.001	3.521	.03280	.01590	.00080	-.02880	-.04900	-.03980	.00170	287.80000
3.001	5.603	.05720	.01930	.00130	-.02400	-.05470	-.04630	.00220	287.80000
3.001	7.302	.08000	.02260	.00170	-.01620	-.05840	-.05280	.00310	287.80000
GRADIENT	.01245	.00095	.00058	.00153	.00228	-.00381	-.00262	.00026	.00000

RUN NO. 476/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHET	CHL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.833	-.06780	.00330	-.00180	-.04060	-.01090	-.01440	.00160	249.50000
3.496	-2.755	-.04290	.00420	-.00090	-.03500	-.01610	-.02010	-.00250	249.50000
3.496	-.686	-.01680	.00640	-.00010	-.03100	-.02260	-.02600	.00550	249.50000
3.496	.354	-.00540	.00810	.00020	-.02870	-.02560	-.02820	.00520	249.50000
3.496	1.427	.00740	.00900	.00040	-.02660	-.02900	-.03150	.00320	249.50000
3.496	3.569	.02890	.01160	.00080	-.02270	-.03780	-.03560	.00350	249.50000
3.496	5.723	.05440	.01380	.00090	-.01590	-.04510	-.04090	.00290	249.50000
3.496	7.494	.07410	.01640	.00170	-.01030	-.05080	-.04620	.00580	249.50000
GRADIENT	.01163	.00102	.00031	.00134	.00211	-.00316	-.00256	.01009	.00000

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## TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C H F M V NOM. RN/L

(BELD26) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1054 IN. ZMRP = 11.2500 IN.  
 SCALE = .0000 SCALE

ALPHA = 10.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 25.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 469/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-4.740	-0.6140	-0.04260	-0.02690	-0.06950	-0.05930	-0.05360	-0.02880	-0.02270	-0.02200	321.00000
2.498	-2.723	-0.03970	-0.04310	-0.02650	-0.06960	-0.05190	-0.04810	-0.03280	-0.02750	-0.01800	321.00000
2.498	-7.11	-0.01750	-0.04380	-0.02650	-0.07030	-0.04540	-0.04050	-0.03660	-0.03180	-0.01600	321.00000
2.498	.295	-0.00450	-0.04340	-0.02640	-0.09980	-0.04200	-0.03680	-0.03950	-0.03480	-0.01480	321.00000
2.498	1.313	-0.00720	-0.04250	-0.02620	-0.06870	-0.03920	-0.03400	-0.04280	-0.03750	-0.01780	321.00000
2.498	3.327	-0.03070	-0.03910	-0.02580	-0.06550	-0.03590	-0.02940	-0.05030	-0.04570	-0.01880	321.00000
2.498	5.348	-0.05180	-0.03640	-0.02570	-0.06210	-0.03160	-0.02470	-0.05590	-0.05230	-0.01750	321.00000
2.498	7.359	-0.07280	-0.03350	-0.02570	-0.05920	-0.02820	-0.02320	-0.06420	-0.05700	-0.01780	321.00000
2.498	9.381	-0.09440	-0.03060	-0.02500	-0.05660	-0.01510	-0.00960	-0.07040	-0.05880	-0.02200	321.00000
2.498	GRADIENT	-0.1146	.00029	.00012	.00041	.00298	.00312	-0.00260	-0.00276	.00040	.00000

RUN NO. 473/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-4.715	-0.05460	-0.03480	-0.02040	-0.05530	-0.04930	-0.04210	-0.01850	-0.01830	-0.01340	288.20000
3.001	-2.671	-0.03660	-0.03540	-0.02040	-0.05590	-0.04250	-0.03770	-0.02330	-0.01980	-0.01640	288.20000
3.001	-.627	-0.01500	-0.03470	-0.02040	-0.05510	-0.03690	-0.03060	-0.02910	-0.02340	-0.01200	288.20000
3.001	.396	-0.00530	-0.03420	-0.02020	-0.05440	-0.03400	-0.02770	-0.03130	-0.02510	-0.01060	288.20000
3.001	1.426	-0.00470	-0.03350	-0.02000	-0.05350	-0.03220	-0.02470	-0.03490	-0.02670	-0.01030	288.20000
3.001	3.471	-0.00740	-0.03160	-0.02000	-0.05160	-0.02610	-0.02140	-0.04030	-0.03760	-0.01760	288.20000
3.001	5.510	-0.02780	-0.02880	-0.02010	-0.04900	-0.02010	-0.02030	-0.04690	-0.04110	-0.01370	288.20000
3.001	7.567	-0.04700	-0.02750	-0.02000	-0.04760	-0.01150	-0.00860	-0.05180	-0.04630	-0.01450	288.20000
3.001	9.616	-0.06160	-0.02520	-0.02080	-0.04600	-0.00680	-0.00200	-0.05850	-0.05180	-0.01530	288.20000
3.001	GRADIENT	-0.1029	.00039	.00006	.00047	.00276	.00268	-0.00268	-0.00218	-.00004	.00000

RUN NO. 477/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.918	-0.05820	-0.02790	-0.01610	-0.04400	-0.04310	-0.03440	-0.00810	-0.01110	-0.00670	252.70000
3.496	-2.811	-0.04030	-0.02890	-0.01600	-0.04490	-0.03760	-0.03160	-0.01320	-0.01560	-0.01210	252.70000
3.496	-.700	-0.01510	-0.02190	-0.01650	-0.04440	-0.03110	-0.02440	-0.02050	-0.01990	-0.00540	252.70000
3.496	.350	-0.00540	-0.02810	-0.01680	-0.04470	-0.02690	-0.02250	-0.02300	-0.02100	-0.00600	252.70000
3.496	1.406	-0.00550	-0.02780	-0.01710	-0.04490	-0.02490	-0.01950	-0.02700	-0.02300	-0.00670	252.70000
3.496	3.514	-0.02310	-0.02670	-0.01710	-0.04380	-0.01980	-0.01690	-0.03180	-0.02800	-0.00800	252.70000
3.496	5.630	-0.04850	-0.02530	-0.01750	-0.04280	-0.01150	-0.00900	-0.03590	-0.03310	-0.01020	252.70000
3.496	7.742	-0.06970	-0.02390	-0.01790	-0.04180	-0.00610	-0.00240	-0.03880	-0.03940	-0.00370	252.70000
3.496	9.850	-0.08150	-0.02190	-0.01860	-0.04000	-0.00470	-0.00120	-0.04320	-0.04220	-0.00670	252.70000
3.496	GRADIENT	-0.0991	.00016	-.00014	.00001	.00284	.00224	-0.00290	-0.00194	.00016	-.00000



ARC 07-747 Q453C B C M F M V NOM. RV/L

(08L027) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2140 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 25.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 470/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-4.736	.00360	-.09620	-.04970	-.14590	-.03720	-.01030	-.02350	-.02760	-.03680	322.20000
2.498	-2.725	.00750	-.09970	-.05080	-.15040	-.03980	-.01040	-.03180	-.02590	-.05340	322.20000
2.498	-.725	.00150	-.10040	-.05170	-.15200	-.03710	-.01490	-.03310	-.02040	-.05460	322.20000
2.498	.282	-.00550	-.10080	-.05200	-.15290	-.03710	-.01940	-.03390	-.01710	-.05390	322.20000
2.498	1.301	-.00870	-.10110	-.05230	-.15340	-.03430	-.02170	-.03390	-.01340	-.05040	322.20000
2.498	3.328	-.01190	-.10100	-.05310	-.15410	-.03390	-.02560	-.03370	-.01060	-.05110	322.20000
2.498	5.342	-.00220	-.10080	-.05370	-.15450	-.02390	-.02670	-.03710	-.01140	-.05560	322.20000
2.498	7.372	.02230	-.10070	-.05390	-.15450	-.01440	-.02030	-.04010	-.01700	-.05810	322.20000
2.498	9.400	.04590	-.09840	-.05410	-.15250	-.00820	-.01570	-.04580	-.02400	-.05860	322.20000
GRADIENT		-.00237	-.00056	-.00041	-.00098	.00058	-.00209	-.00146	.00231	.00069	-.00000

RUN NO. 474/ 0 RV/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-4.716	-.01390	-.08000	-.04160	-.12150	-.03270	-.00890	-.01320	-.01460	-.04910	288.20000
3.001	-2.672	.00280	-.08190	-.04220	-.12410	-.03100	-.00680	-.02120	-.01940	-.04430	288.20000
3.001	-.632	.00400	-.08300	-.04350	-.12650	-.02670	-.00680	-.02550	-.01200	-.04350	288.20000
3.001	.360	-.00370	-.08320	-.04350	-.12680	-.02830	-.00990	-.02550	-.00900	-.04490	288.20000
3.001	1.405	-.00770	-.08370	-.04370	-.12740	-.02660	-.01350	-.02570	-.00670	-.04400	288.20000
3.001	3.466	-.00800	-.08430	-.04350	-.12770	-.02320	-.01920	-.02850	-.00600	-.04240	288.20000
3.001	5.517	.00940	-.08410	-.04430	-.12840	-.01400	-.01560	-.02990	-.00910	-.04550	288.20000
3.001	7.576	.02940	-.08440	-.04540	-.12980	-.00820	-.01180	-.03420	-.01530	-.04680	288.20000
3.001	9.634	.04960	-.08440	-.04660	-.13090	-.00440	-.00820	-.03670	-.02140	-.04850	288.20000
GRADIENT		.00008	-.00051	-.00027	-.00078	.00112	-.00129	-.00174	.00149	.00078	.00000

RUN NO. 478/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.918	-.02260	-.06770	-.03610	-.10380	-.02880	-.01160	-.00740	-.01040	-.03560	253.10000
3.496	-2.811	-.00860	-.06940	-.03640	-.10580	-.02600	-.00790	-.01210	-.01330	-.03590	253.10000
3.496	-.711	-.00410	-.07060	-.03680	-.10740	-.02400	-.00550	-.01720	-.00810	-.03580	253.10000
3.496	.335	-.00560	-.07130	-.03700	-.10830	-.02370	-.00640	-.01830	-.00620	-.03430	253.10000
3.496	1.395	-.00590	-.07200	-.03730	-.10930	-.02150	-.00780	-.01790	-.00630	-.03290	253.10000
3.496	3.519	-.00290	-.07200	-.03880	-.11080	-.01630	-.01380	-.02120	-.00600	-.03110	253.10000
3.496	5.638	-.01410	-.07280	-.04040	-.11320	-.01080	-.00950	-.02300	-.01140	-.03020	253.10000
3.496	7.750	.02590	-.07270	-.04130	-.11400	-.00770	-.00720	-.02450	-.01640	-.03710	253.10000
3.496	9.875	.04110	-.07190	-.04220	-.11410	-.00340	-.00470	-.02870	-.02150	-.03620	253.10000
GRADIENT		.00206	-.00054	-.00029	-.00083	.00136	-.00015	-.00161	.00078	.02766	.00000

(07 MAR 74 )

ARC 87-747 Q455C B C M F W V NON. RNVL

PARAMETRIC DATA

BETA = .000 ELEVON = .000  
AILCON = .000 BDFLAP = .000  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

REFERENCE DATA

SFTF = 2.4210 SQ.FT. WMEP = 32.3010 IN.  
LEET = 14.2440 IN. YMEP = .00000 IN.  
BREF = 2.1004 IN. ZMEP = 11.2500 IN.  
SCALE = .0000 SCALE

RUN NO. 419/ 0 RNVL = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CHP	CHET	CHUL	CHUR	CHLR	CHRF	Q
2.499	-0.1360	.02360	.02330	-.11790	-.10510	-.09540	-.02750	324.70000
2.499	-0.136	.02250	.01900	-.11620	-.10420	-.09520	-.02940	324.70000
2.499	-0.1126	.01200	.00740	-.11360	-.10230	-.09340	-.03200	324.70000
2.499	-0.1150	.01200	.00740	-.11360	-.10230	-.09340	-.03200	324.70000
2.499	-0.0920	.00280	.01480	-.10920	-.09900	-.09100	-.03740	324.70000
2.499	-0.0920	.00280	.01480	-.10920	-.09900	-.09100	-.03740	324.70000
2.499	-0.0810	.00160	.00330	-.10450	-.09660	-.08840	-.04530	324.70000
2.499	-0.0810	.00160	.00330	-.10450	-.09660	-.08840	-.04530	324.70000
2.499	-0.0890	.00440	.00670	-.09670	-.09150	-.08290	-.05250	324.70000
2.499	-0.0890	.00440	.00670	-.09670	-.09150	-.08290	-.05250	324.70000
2.499	-0.0850	.00340	.00920	-.09270	-.08830	-.07960	-.05545	324.70000
2.499	-0.0850	.00340	.00920	-.09270	-.08830	-.07960	-.05545	324.70000
2.499	-0.1040	.00730	.01150	-.09060	-.08600	-.07720	-.07300	324.70000
2.499	-0.1040	.00730	.01150	-.09060	-.08600	-.07720	-.07300	324.70000
2.499	-0.1150	.00930	.01390	-.08720	-.08250	-.07400	-.09680	324.70000
2.499	-0.1150	.00930	.01390	-.08720	-.08250	-.07400	-.09680	324.70000
2.499	-0.0910	.00570	.01620	-.08000	-.07450	-.06710	-.12280	324.70000
2.499	-0.0910	.00570	.01620	-.08000	-.07450	-.06710	-.12280	324.70000
2.499	-0.0730	.00310	.01720	-.06910	-.06350	-.05680	-.14460	324.70000
2.499	-0.0730	.00310	.01720	-.06910	-.06350	-.05680	-.14460	324.70000
2.499	-0.0620	.00220	.01570	-.06350	-.05780	-.052900	-.17680	324.70000
2.499	-0.0620	.00220	.01570	-.06350	-.05780	-.052900	-.17680	324.70000
2.499	-0.0740	.00740	.00530	-.05390	-.05220	-.04730	-.20140	324.70000
2.499	-0.0740	.00740	.00530	-.05390	-.05220	-.04730	-.20140	324.70000
2.499	-0.0704	.00242	.00944	-.05207	-.05148	-.05112	-.00235	.00000
2.499	-0.0704	.00242	.00944	-.05207	-.05148	-.05112	-.00235	.00000

RUN NO. 420/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CHP	CHET	CHUL	CHUR	CHLR	CHRF	Q
3.001	-0.609	.01570	.01400	-.09810	-.08890	-.08220	-.00000	.00000
3.001	-0.609	.01570	.01400	-.09810	-.08890	-.08220	-.00000	.00000
3.001	-0.5560	.01340	.01130	-.09640	-.08760	-.08190	-.00000	.00000
3.001	-0.5560	.01340	.01130	-.09640	-.08760	-.08190	-.00000	.00000
3.001	-0.50560	.00560	.00110	-.09280	-.08500	-.07860	-.00000	.00000
3.001	-0.50560	.00560	.00110	-.09280	-.08500	-.07860	-.00000	.00000
3.001	-0.4080	.00480	.00130	-.09170	-.08500	-.07950	-.00000	.00000
3.001	-0.4080	.00480	.00130	-.09170	-.08500	-.07950	-.00000	.00000
3.001	-0.3570	.01400	.00260	-.08830	-.08210	-.07720	-.00000	.00000
3.001	-0.3570	.01400	.00260	-.08830	-.08210	-.07720	-.00000	.00000
3.001	-0.2250	.00250	.00330	-.08630	-.07840	-.07470	-.00000	.00000
3.001	-0.2250	.00250	.00330	-.08630	-.07840	-.07470	-.00000	.00000
3.001	-0.0300	.00300	.00150	-.08170	-.07460	-.06750	-.00000	.00000
3.001	-0.0300	.00300	.00150	-.08170	-.07460	-.06750	-.00000	.00000
3.001	-0.0610	.00440	.00270	-.07770	-.07270	-.06500	-.00000	.00000
3.001	-0.0610	.00440	.00270	-.07770	-.07270	-.06500	-.00000	.00000
3.001	-0.0890	.00580	.00440	-.07430	-.06740	-.05970	-.00000	.00000
3.001	-0.0890	.00580	.00440	-.07430	-.06740	-.05970	-.00000	.00000
3.001	-0.0820	.00740	.01190	-.06880	-.06360	-.04600	-.00000	.00000
3.001	-0.0820	.00740	.01190	-.06880	-.06360	-.04600	-.00000	.00000
3.001	-0.0600	.00900	.01390	-.06200	-.05400	-.04190	-.00000	.00000
3.001	-0.0600	.00900	.01390	-.06200	-.05400	-.04190	-.00000	.00000
3.001	-0.0750	.01080	.01630	-.05060	-.04320	-.03690	-.00000	.00000
3.001	-0.0750	.01080	.01630	-.05060	-.04320	-.03690	-.00000	.00000
3.001	-0.0630	.01230	.01860	-.04020	-.03190	-.02360	-.00000	.00000
3.001	-0.0630	.01230	.01860	-.04020	-.03190	-.02360	-.00000	.00000
3.001	-0.0024	.00314	.00687	-.00137	.00589	.00093	-.00166	.00000
3.001	-0.0024	.00314	.00687	-.00137	.00589	.00093	-.00166	.00000



DATE 13 SEP 74

**TABLE 1. TABULATED SOURCE DATA - OASYS**

(BEL029) ( 07 MAR 74 )

ARC 87-747 OA53C B C M F W1 V NOM. RM/L

## REFERENCE DATA

WAD	=	2.4210 50-FT.	WADP	=	32.3010 IN.
WDY	=	14.2440 IN.	WDYP	=	.0000 IN.
WDF	=	20.1004 IN.	WDFP	=	11.2500 IN.
SCALE	=	.0900 SCALE			

ALPHA =	.000	ELEVON =	.000
BETALON =	.000	BOFLAP =	-11.700
SPDRK =	55.000	RUDDER =	-10.000
ELEV-L =	.000	ELEV-R =	.000

## PARAMETRIC DATA

Run No	449/0	RM/L	1.75	Gradient Interval	= -5.00/	5.00
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BETA	QAR	QEI	QED	QET	QAL	QALL	QAR	QAR	QAR	QAR	QAR
-1.643	0.1670	0.1660	-0.0090	0.0990	-0.0940	-0.0690	-0.1130	-0.1060	0.0000	323.10000	
-2.640	0.9130	0.1800	-0.0060	0.1200	-0.0660	-0.0760	-0.1750	-0.1160	0.0000	323.10000	
.304	0.1390	0.0200	-0.0040	0.1610	-0.0760	-0.0500	-0.1480	-0.1280	0.0010	323.10000	
3.376	1.7840	0.0280	-0.0020	0.0240	-0.0660	-0.0730	-0.1570	-0.1440	0.0020	323.10000	
9.427	21.640	0.0660	-0.0160	0.0240	-0.055	-0.0500	-0.1530	-0.1570	0.0070	323.10000	
7.093	23.710	0.0370	-0.0130	0.0290	-0.0440	-0.0460	-0.1690	-0.1730	0.0020	323.10000	
0.000	0.0000	0.0070	-0.0060	0.0030	-0.0345	-0.0367	-0.0533	-0.0444	0.0000	-0.00000	

PLAN NO.	452/ 0	RM/L = 1.74	GRADIENT INTERVAL =	-5.00/ 5.00
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BETA	OR	OE1	OE2	OET	OLL	OUR	OLR	OMF	θ
-4.608	.01430	-.02690	-.02600	.02100	-.06410	-.07280	-.08740	.00140	290.10000
-2.614	.08100	.03760	-.00500	.00270	-.08410	-.10100	-.10150	-.00030	290.10000
-.605	.10210	.01040	-.02340	.00660	-.06840	-.05650	-.10700	.00420	290.10000
.394	.12660	.01110	-.02310	.00790	-.06200	-.12960	-.11160	.00300	290.10000
1.443	.14700	.01160	-.02270	.00690	-.05710	-.08010	-.11680	.00170	290.10000
3.596	.16530	.01410	-.00190	.01220	-.04590	-.14770	-.12460	.00530	290.10000
5.605	.22310	.01760	.00110	.01650	-.03460	-.15440	-.14140	.00440	290.10000
7.297	.25660	.02120	.00260	.02160	-.02840	-.16290	-.15370	.00320	290.10000
10.000	.02105	.00791	.00252	.02141	.02482	.02136	-.02477	.00468	.00020

RUN NO. 455/ 0 RM/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

BEA	Q4	CH1	CH20	CHT	QAL	QALL	CHUR	CHUR	CHFF	Q
3.496	-0.00170	.000330	-.00480	-.00440	-.07370	-.08350	-.07000	-.06760	.003940	257.00000
3.496	.04210	.02280	-.00410	-.01010	-.06550	-.05690	-.01200	-.08250	.00340	257.00000
3.496	.06600	.00520	-.00330	.00200	-.05360	-.05030	-.09730	-.09280	.00330	257.00000
3.496	.11260	.02660	-.00260	.00160	-.04720	-.04620	-.00720	-.09280	.00440	257.00000
3.496	.13720	.03720	-.00240	.00470	-.04210	-.04230	-.01630	-.00520	.00200	257.00000
3.496	.18030	.01000	-.00170	.00630	-.03280	-.03630	-.03350	-.01610	.00530	257.00000
3.496	.22470	.01170	-.00140	.01030	-.01170	-.02730	-.01840	-.03030	.00350	257.00000
3.496	.25660	.01340	-.00120	.01420	-.02070	-.02360	-.01930	-.04050	.00230	257.00000
3.496	.02113	.00036	.00036	.00151	.00523	.00329	-.00766	-.00571	-.00034	-.00000

## REFERENCE DATA

9857	=	2.4210	98.57	=	32.3010	IN.
1087	=	14.2440	IN.	=	.0000	IN.
8857	=	20.1004	IN.	=	11.2500	IN.
SCALE	=	.0300	SCALE			

### PARAMETRIC DATA

ALPHA	=	10.000	ELEVON	=	.000
AILRON	=	.000	BOFLAP	=	-11.700
SPOBRK	=	55.000	RUDDER	=	-10.000
ELEV-L	=	.000	ELEV-R	=	.000

RUN NO.	Q/ Q	RM/L	1.75	GRADIENT INTERVAL =	-5.00/	5.00
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	0.00	0.00	0.00	0.00	0.00
32	0.00	0.00	0.00	0.00	0.00	0.00
33	0.00	0.00	0.00	0.00	0.00	0.00
34	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00
37	0.00	0.00	0.00	0.00	0.00	0.00
38	0.00	0.00	0.00	0.00	0.00	0.00
39	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00
41	0.00	0.00	0.00	0.00	0.00	0.00
42	0.00	0.00	0.00	0.00	0.00	0.00
43	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00
46	0.00	0.00	0.00	0.00	0.00	0.00
47	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00
49	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00	0.00
52	0.00	0.00	0.00	0.00	0.00	0.00
53	0.00	0.00	0.00	0.00	0.00	0.00
54	0.00	0.00	0.00			

BETA	Q <sub>R</sub>	Q <sub>E1</sub>	Q <sub>E0</sub>	Q <sub>E1</sub>	Q <sub>HL</sub>	Q <sub>LL</sub>	Q <sub>HLR</sub>	Q <sub>HLR</sub>	Q <sub>HLR</sub>	Q
-4.735	0.2210	-0.04310	-0.02950	-0.07260	-0.08500	-0.07830	-0.09860	-0.08740	-0.02150	325.703000
-2.721	0.05860	-0.04540	-0.02970	-0.07310	-0.07590	-0.07140	-0.10580	-0.09610	-0.01970	325.700000
2.296	1.1670	-0.04620	-0.02940	-0.07560	-0.06399	-0.05700	-0.12303	-0.11460	-0.01430	325.700000
3.322	1.7630	-0.04290	-0.02950	-0.07240	-0.05590	-0.04520	-0.13910	-0.13940	-0.01600	325.700000
5.339	2.0840	-0.03980	-0.02920	-0.06900	-0.05000	-0.03940	-0.14660	-0.15120	-0.01780	325.70010
7.360	2.3550	-0.03700	-0.02920	-0.06620	-0.04080	-0.04020	-0.15470	-0.16180	-0.01950	325.700000
9.376	2.6880	-0.03340	-0.02950	-0.06290	-0.02790	-0.02320	-0.15840	-0.16160	-0.01870	325.700000
GRADIENT	0.918	0.00003	0.00001	0.00004	0.00362	0.00419	0.00489	0.00648	0.00079	325.700000

RUN NO. 0/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	QR	QRI	QEO	QET	QUL	QHL	CHUR	CHLR	CHBF	Q
3.001	-4.716	.01120	-.03700	-.02330	-.06040	-.07240	-.06630	-.07470	-.07520	-.01240	291.60000
3.001	-2.669	.05030	-.03730	-.02340	-.06070	-.06360	-.05760	-.09010	-.08140	-.01130	291.60000
3.001	-6.628	.08890	-.03670	-.02340	-.06030	-.05690	-.04780	-.10330	-.09030	-.01160	291.60000
3.001	1.422	.12940	-.03750	-.02330	-.05890	-.05050	-.04180	-.11510	-.10660	-.01130	291.60000
3.001	5.521	.20280	-.07110	-.02370	-.05490	-.03420	-.03410	-.13320	-.13790	-.01150	291.60000
3.001	7.562	.23880	-.02960	-.02370	-.05340	-.02500	-.01730	-.13890	-.14210	-.01100	291.60000
3.001	9.614	.26870	-.02730	-.02400	-.05130	-.01580	-.00880	-.14370	-.14760	-.01480	291.60000
GRADIENT	.01922	.00024	.00000	.00000	.00024	.00354	.00407	-.00657	-.00504	.00015	.00000

RUN NO.	0/ 0	RN/L =	1.75	GRADIENT INTERVAL =	-5.00/ 5.00
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BETA	QAR	QEI	QEO	QET	QUL	QAL	QUR	QLR	QHF	Q
3.496	-0.01510	-0.03040	-0.01870	-0.04910	-0.06290	-0.05570	-0.05270	-0.05090	-0.00880	256.20000
3.496	0.03450	0.03100	-0.01920	-0.05020	-0.05610	-0.04980	-0.07210	-0.06830	-0.00600	256.20000
3.496	0.07710	0.03110	0.01590	0.05100	-0.04910	-0.04040	-0.08600	-0.08060	-0.01100	256.20000
3.496	0.10120	0.03070	0.02020	0.05090	-0.04330	0.03680	-0.09480	-0.08660	-0.00820	256.20000
3.496	1.405	0.03030	0.02000	0.05030	-0.03830	0.03480	-0.10420	-0.09490	-0.00660	256.20000
3.496	3.522	0.02960	0.02020	0.04980	0.03020	0.02950	-0.11590	-0.11230	-0.00970	256.20000
3.496	5.628	0.02770	0.02070	0.04840	0.02260	0.01840	-0.12250	-0.12110	-0.00850	256.20000
3.496	7.744	0.02630	0.02100	0.04730	0.01480	0.00730	-0.12400	-0.12110	-0.00560	256.20000
3.496	9.649	0.02430	0.02130	0.04560	0.01090	0.00560	-0.12650	-0.12440	-0.00780	256.20000
GRADIENT	0.02175	0.00010	-0.00019	-0.00009	0.00394	0.00323	-0.00753	-0.00704	-0.00011	-0.00000

DATE 15 JUL 74

## TABULATED SOURCE DATA - 0453C

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ARC 07.747 0453C B C M F 12 V 100% RN/L

(BEL031) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 20.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
 AIRLON = .000 BDFLAP = -11.700  
 SPOCK = 55.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 451/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHUR	CHLR	CHBF	Q
2.498	-4.735	.07320	-.09850	-.05120	-.05880	-.01980	-.06470	-.08710	-.05630	326.80000
2.498	-2.731	.11390	-.10220	-.05380	-.05990	-.02160	-.09960	-.09580	-.05340	326.80000
2.498	-.723	.11230	-.10340	-.05480	-.05620	-.02820	-.10410	-.09270	-.05480	326.80000
2.498	.281	.10130	-.10410	-.05530	-.05510	-.03490	-.10920	-.08210	-.05310	326.80000
2.498	1.297	.10030	-.10460	-.05570	-.05390	-.03820	-.11820	-.07420	-.05190	326.80000
2.498	3.319	.06080	-.10440	-.05650	-.05050	-.04250	-.11310	-.04070	-.05140	326.80000
2.498	5.347	.06350	-.10350	-.05690	-.03660	-.04100	-.10450	-.03660	-.05650	326.80000
2.498	7.369	.09180	-.10270	-.05710	-.02100	-.02990	-.09880	-.04390	-.05290	326.80000
2.498	9.398	.12510	-.09980	-.05720	-.01470	-.02470	-.09740	-.06710	-.05850	326.80000
GRADIENT		-.00170	-.00072	-.00047	.00112	-.00312	-.00580	.00550	.00056	-.00000

RUN NO. 454/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHUR	CHLR	CHBF	Q
3.001	-4.715	.02230	-.08300	-.04520	-.04860	-.01770	-.03690	-.05180	-.04880	293.30000
3.001	-2.681	.08490	-.08530	-.04650	-.04840	-.01440	-.07390	-.07380	-.04270	293.30000
3.001	-.643	.08940	-.08650	-.04750	-.04350	-.01760	-.08820	-.06230	-.04270	293.30000
3.001	.386	.07400	-.08690	-.04780	-.04470	-.02310	-.09090	-.05090	-.04000	293.30000
3.001	3.460	.04140	-.08760	-.04770	-.03370	-.03330	-.08940	-.02300	-.04300	293.30000
3.001	5.519	.06850	-.08700	-.04840	-.02320	-.02720	-.08450	-.03440	-.04110	293.30000
3.001	7.574	.10410	-.08710	-.04880	-.01590	-.01900	-.08500	-.05320	-.04440	293.30000
3.001	9.629	.12610	-.08650	-.05040	-.01010	-.01620	-.08680	-.06550	-.04550	293.30000
GRADIENT		.00112	-.00055	-.00031	.00136	-.00207	-.00608	.00425	.00048	-.00000

RUN NO. 457/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHUR	CHLR	CHBF	Q
3.496	-4.919	-.01890	-.06990	-.03880	-.04300	-.02080	-.05190	-.02520	-.03420	256.30000
3.496	-2.618	.04800	-.07260	-.03970	-.04030	-.01290	-.04930	-.05180	-.03260	256.30000
3.496	-.719	.06560	-.07380	-.04030	-.03320	-.01310	-.07350	-.04040	-.03540	256.30000
3.496	.335	.05250	-.07430	-.04050	-.03610	-.01430	-.07480	-.02810	-.03200	256.30000
3.496	1.391	.04440	-.07510	-.04100	-.03620	-.01730	-.07580	-.02210	-.03450	256.30000
3.496	3.509	.04390	-.07570	-.04190	-.02580	-.02260	-.07360	-.01860	-.03220	256.30000
3.496	5.632	.07680	-.07540	-.04350	-.01640	-.01630	-.07130	-.03340	-.03340	256.30000
3.496	7.754	.09490	-.07520	-.04450	-.01100	-.01190	-.06990	-.04780	-.03560	256.30000
3.496	9.873	.11150	-.07380	-.04570	-.00790	-.00980	-.07440	-.05680	-.03340	256.30000
GRADIENT		.00547	-.00067	-.00035	.00179	-.00032	-.00656	.00207	.00015	-.00000

DATE 15 JUL 74

TABULATED SOURCE DATA - Q453C

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ARC 87-747 Q453C B C M F W V NOK. RN/L

(07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA = .000 ELEVON = .000  
 AIRLON = .000 BDFLAP = -11.700  
 SPBRK = 46.000 RUDDER = -20.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 491/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHLL	CHLL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-4.633	.19710	.01780	-.00390	.01380	-.03340	-.03150	-.12340	-.13860	-.00050	315.10000	
2.499	-2.675	.24770	.01840	-.00310	.01330	-.02860	-.02550	-.15420	-.14760	.00100	315.10000	
2.499	-.689	.27280	.02510	-.00230	.01780	-.02520	-.02150	-.16470	-.15480	.00410	315.10000	
2.499	.298	.28440	.03050	-.00170	.01880	-.02420	-.01870	-.16780	-.15960	-.00050	315.10000	
2.499	1.324	.30140	.02110	-.00080	.02030	-.02180	-.01610	-.17220	-.16720	.00460	315.10000	
2.499	3.376	.32260	.02380	.00010	.02390	-.01860	-.01360	-.17670	-.17800	.00360	315.10000	
2.499	5.428	.35340	.02760	.00100	.02870	-.01430	-.00900	-.18390	-.19290	.00230	315.10000	
2.499	7.121	.37790	.03150	.00140	.03290	-.00900	-.00900	-.18800	-.20790	.00330	315.10000	
GRADIENT		.01321	.00675	.00051	.00125	.00181	.00227	-.00627	-.00486	.00052	-.00000	

RUN NO. 494/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHLL	CHLL	CHLL	CHUR	CHLR	CHBF	Q
3.000	-4.636	.15660	.00730	-.00300	.00430	-.03000	-.02480	-.09650	-.11490	.00080	287.20000	
3.000	-2.619	.19610	.00800	-.00240	.00570	-.02710	-.02110	-.11410	-.13030	-.00310	287.20000	
3.000	-.613	.23590	.01100	-.00080	.01020	-.02130	-.01720	-.13760	-.13670	-.00060	287.20000	
3.000	.389	.25430	.01180	-.00030	.01140	-.01820	-.01540	-.14680	-.14120	.00060	287.20000	
3.000	1.436	.27910	.01290	.00020	.01310	-.01430	-.01160	-.15650	-.14850	.00220	287.20000	
3.000	3.521	.30880	.01520	.00060	.01580	-.00980	-.01050	-.16890	-.16220	-.00060	287.20000	
3.000	5.600	.33730	.01890	.00160	.02050	-.00630	-.00380	-.17790	-.17460	.00060	287.20000	
3.000	7.325	.36420	.02200	.00200	.02400	-.00400	-.00590	-.18500	-.18910	.00310	287.20000	
GRADIENT		.01502	.00102	.00049	.00149	.00261	.00187	-.00924	-.00530	.00014	.00000	

RUN NO. 497/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHLL	CHLL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.835	.13420	.00220	-.00150	.00070	-.02710	-.02220	-.08740	-.09610	-.00190	252.20000	
3.496	-2.764	.16810	.00370	-.00030	.00340	-.02120	-.01960	-.09560	-.11320	.00290	252.20000	
3.496	-.686	.20360	.00610	.00020	.00630	-.01620	-.01540	-.11160	-.12360	.00030	252.20000	
3.496	.351	.22220	.00730	.00050	.00780	-.01290	-.01320	-.12030	-.12790	.00290	252.20000	
3.496	1.421	.24240	.00800	.00080	.00870	-.00860	-.01040	-.13150	-.13690	.00480	252.20000	
3.496	3.574	.29320	.01060	.00140	.01200	-.00400	-.00870	-.15350	-.15240	.00190	252.20000	
3.496	5.714	.33200	.01330	.00180	.01510	-.00570	-.00520	-.17210	-.16570	.00380	252.20000	
3.496	7.492	.35810	.01620	.00220	.01840	-.00110	-.00310	-.18410	-.17820	.00670	252.20000	
GRADIENT		.01889	.00101	.00033	.00133	.00279	.00173	-.00794	-.00643	.00047	-.00000	

DATE 15 JUL 74

TABULATED SOURCE DATA - QAS3C

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ARC 87-747 QAS3C B C H F W V NOM. RNVL

(07033) (07 MAR 74)

## REFERENCE DATA

SCEF = 2.4210 SQ.FT. XMEP = 32.3010 IN.  
 LEF = 14.2440 IN. YMEP = .0000 IN.  
 BEF = 28.1004 IN. ZMEP = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA = 10.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 46.000 RUDDER = -20.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 492/ 0 RNVL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHP	CHFI	CHFO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-4.739	.17240	-.04130	-.02660	-.06790	-.03080	-.02560	-.11360	-.11320	-.11430	317.80000
2.499	-2.722	.20290	-.04350	-.02680	-.07030	-.02520	-.02210	-.12520	-.12510	-.01720	317.80000
2.499	-.712	.23440	-.04450	-.02680	-.07130	-.02090	-.01590	-.13550	-.13570	-.01370	317.80000
2.499	.286	.24920	-.04450	-.02650	-.07100	-.01920	-.01320	-.14050	-.14320	-.01290	317.80000
2.499	1.304	.26940	-.04380	-.02630	-.07000	-.01720	-.01320	-.14630	-.15350	-.01280	317.80000
2.499	3.325	.30200	-.04090	-.02610	-.06700	-.01690	-.01030	-.15680	-.17230	-.01420	317.80000
2.499	5.339	.33110	-.03790	-.02590	-.06380	-.01280	-.00860	-.16510	-.18750	-.01740	317.80000
2.499	7.360	.34990	-.03530	-.02590	-.06120	-.00910	-.01000	-.17200	-.19690	-.01640	317.80000
2.499	9.379	.36830	-.03190	-.02620	-.05820	-.00390	-.00630	-.18040	-.19810	-.01760	317.80000
GRADIENT		.01610	-.00001	.00007	.00007	.00180	.00197	-.00533	-.00699	.01038	-.00000

RUN NO. 495/ 0 RNVL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHP	CHFI	CHFO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.000	-4.714	.14170	-.03510	-.02030	-.05530	-.02470	-.02010	-.08320	-.10120	-.01320	287.10000
3.000	-2.674	.17610	-.03580	-.02030	-.05600	-.02040	-.01630	-.10350	-.10940	-.01380	287.10000
3.000	-.633	.21150	-.03510	-.02030	-.05530	-.01740	-.01130	-.12070	-.11940	-.01560	287.10000
3.000	.393	.22780	-.03430	-.02030	-.05470	-.01570	-.01030	-.12710	-.12670	-.01200	287.10000
3.000	1.421	.24800	-.03360	-.02030	-.05370	-.01450	-.00920	-.13400	-.13740	-.00900	287.10000
3.000	3.463	.26490	-.03160	-.02030	-.05190	-.01090	-.00680	-.14540	-.15720	-.01150	287.10000
3.001	5.510	.30980	-.02910	-.02030	-.04940	-.00780	-.00780	-.15340	-.17200	-.01150	287.10000
3.001	7.561	.32510	-.02800	-.02030	-.04820	-.00460	-.00440	-.15940	-.17470	-.01320	287.10000
3.000	9.607	.33840	-.02590	-.02080	-.04670	-.00280	-.00180	-.16480	-.17830	-.01570	287.10000
GRADIENT		.01747	.00044	.00001	.00043	.00164	.00167	-.00741	-.00674	.00714	-.00000

RUN NO. 498/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHP	CHFI	CHFO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.920	.10330	-.02810	-.01540	-.04350	-.02090	-.01730	-.06330	-.07820	-.00790	252.20000
3.496	-2.809	.15330	-.02900	-.01570	-.04470	-.01770	-.01400	-.08750	-.09760	-.00730	252.20000
3.496	-.702	.18940	-.02850	-.01610	-.04460	-.01370	-.00930	-.10250	-.11000	-.00610	252.20000
3.496	.352	.20930	-.02850	-.01610	-.04460	-.01160	-.00830	-.11310	-.11620	-.00610	252.20000
3.496	1.401	.23300	-.02780	-.01630	-.04410	-.00870	-.00870	-.12370	-.12790	-.00800	252.20000
3.496	3.519	.27150	-.02750	-.01670	-.04420	-.00570	-.00800	-.13800	-.14710	-.00570	252.20000
3.496	5.628	.28800	-.02560	-.01720	-.04280	-.00460	-.00680	-.14470	-.15460	-.00830	252.20000
3.496	7.740	.29790	-.02360	-.01770	-.04120	-.00150	-.00190	-.14780	-.15350	-.00700	252.20000
3.496	9.855	.30580	-.02210	-.01760	-.03970	-.00180	-.00220	-.14860	-.15630	-.00600	252.20000
GRADIENT		.01970	.00011	-.00015	-.00004	.00181	.00117	-.00882	-.00789	.00010	.00000



ARC 87-747 0453C B C M F W V NOM. RN/L

(04534) ( 07 MAR 74 )

## REFERENCE DATA

SKEP = 2.4210 SQ.FT. XMEP = 32.3510 IN.  
 LEET = 14.2440 IN. YMEP = .0555 IN.  
 BPEF = 28.1504 IN. ZMEP = 11.2500 IN.  
 SCALE = .5355 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .000  
 AIRLON = .000 BDFLAP = -11.700  
 SPDRK = 46.000 RUDDER = -20.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 493/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-4.737	.15760	-.09650	-.05020	-.14670	-.01930	-.00570	-.07470	-.10800	-.05650	319.80000
2.499	-2.727	.21750	-.09920	-.05080	-.15010	-.01930	-.00590	-.11670	-.12600	-.05500	319.80000
2.499	-.723	.22030	-.10050	-.05170	-.15230	-.01830	-.00760	-.12350	-.12270	-.10150	319.80000
2.499	.280	.21320	-.10110	-.05210	-.15310	-.01800	-.00870	-.12990	-.11190	-.05230	319.80000
2.499	1.296	.20740	-.10100	-.05240	-.15340	-.01780	-.00970	-.13430	-.10060	-.04900	319.80000
2.499	3.317	.16110	-.10110	-.05330	-.15430	-.01680	-.01470	-.13150	-.05100	-.05250	319.80000
2.499	5.342	.15120	-.10110	-.05370	-.15480	-.01190	-.01380	-.12360	-.05530	-.05680	319.80000
2.499	7.367	.15660	-.10110	-.05390	-.15500	-.00550	-.01240	-.11380	-.05430	-.05470	319.80000
2.499	9.393	.18480	-.09810	-.05440	-.15260	-.00200	-.00930	-.10850	-.05870	-.05980	319.80000
GRADIENT		.00028	-.00056	-.00039	-.00094	.00034	-.00106	-.00666	.00566	.00090	-.00000

RUN NO. 496/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.000	-4.718	.09250	-.08010	-.04150	-.12170	-.01600	-.00450	-.04280	-.07020	-.04680	288.30000
3.001	-2.674	.16820	-.08190	-.04240	-.12430	-.01380	-.00350	-.08430	-.10120	-.04350	288.30000
3.000	-.636	.17790	-.08320	-.04370	-.12690	-.01350	-.00480	-.10550	-.09080	-.04320	288.30000
3.000	.375	.16750	-.08320	-.04360	-.12680	-.01430	-.00540	-.10900	-.07820	-.03980	288.30000
3.001	1.409	.15500	-.08330	-.04370	-.12700	-.01380	-.00650	-.11140	-.06280	-.04040	288.30000
3.001	3.464	.13080	-.08450	-.04370	-.12820	-.01000	-.01030	-.10760	-.04360	-.04410	288.30000
3.000	5.520	.13610	-.08430	-.04450	-.12880	-.00540	-.00970	-.09830	-.03290	-.04460	288.30000
3.001	7.575	.15760	-.08470	-.04560	-.13020	-.00330	-.00850	-.09630	-.07300	-.04420	288.30000
3.001	9.630	.17360	-.08470	-.04710	-.13180	-.00160	-.00660	-.09710	-.08460	-.04430	288.30000
GRADIENT		.00347	-.00050	-.00028	-.00078	.00056	-.00069	-.00787	.00426	.00048	.00000

RUN NO. 499/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.919	.05250	-.06710	-.03530	-.10240	-.01520	-.00540	-.02610	-.04690	-.03500	252.40000
3.496	-2.816	.11620	-.06940	-.03600	-.10530	-.01350	-.00530	-.05730	-.07780	-.03670	252.40000
3.496	-.712	.13900	-.07080	-.03620	-.10700	-.01040	-.00530	-.08840	-.06630	-.03510	252.40000
3.496	.341	.12950	-.07140	-.03650	-.10800	-.01210	-.00430	-.09090	-.05490	-.03510	252.40000
3.496	1.400	.11790	-.07200	-.03700	-.10900	-.01150	-.00520	-.09100	-.04360	-.03160	252.40000
3.496	3.511	.11000	-.07210	-.03840	-.11060	-.00810	-.00960	-.08920	-.03860	-.03420	252.40000
3.496	5.634	.13110	-.07220	-.03960	-.11180	-.00400	-.00760	-.08450	-.03820	-.03670	252.40000
3.496	7.753	.13840	-.07220	-.04050	-.11270	-.00230	-.00640	-.08050	-.05670	-.03510	252.40000
3.496	9.865	.15070	-.07200	-.04190	-.11390	-.00180	-.00430	-.08220	-.07450	-.03610	252.40000
GRADIENT		.00585	-.00061	-.00033	-.00096	.00075	-.00035	-.00782	.00236	.00030	.00000



## REFERENCE DATA

9877 =	2.4210 SQ.FT.	10498 =	32.3010 IN.
9878 =	14.2440 IN.	10499 =	.0000 IN.
9879 =	20.1004 IN.	20499 =	11.2500 IN.
SCALE =	.0300 SCALE		

### PARAMETRIC DATA

ALPHA =	.000	ELEVON =	.000
AIRLON =	.000	BOFLAP =	-11.700
SPOBRK =	25.000	RUDDER =	-10.000
ELEV-L =	.000	ELEV-R =	.000

RUN NO.	0/ 0	RM/L = 1.75	GRADIENT INTERVAL = -5.00/ 5.00
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MACH	BETA	QMR	QMEI	QCEO	QMET	QML	QMLL	QMLR	QMR	QMR	QMR	Q
2.498	-4.647	.08240	.01860	-.00430	.01430	-.03400	-.02740	-.06380	-.06000	-.00160	310.80000	
2.498	-2.667	.09370	.01910	-.00360	.01540	-.02850	-.02230	-.07690	-.08770	-.00210	310.80000	
2.498	-.687	.11030	.02080	-.00260	.01820	-.02410	-.02070	-.08410	-.07110	-.00180	310.80000	
2.498	1.329	.13110	.02250	-.00050	.02100	-.02000	-.01600	-.09010	-.07890	-.00250	310.80000	
2.498	3.377	.14930	.02430	-.00030	.02380	-.01780	-.01390	-.09610	-.08490	-.00100	310.80000	
2.498	5.425	.17560	.02820	.00030	.02850	-.01240	-.00950	-.10260	-.09490	-.00230	310.80000	
2.498	7.141	.20240	.03180	.00070	.03250	-.00700	-.00640	-.11120	-.10470	-.00130	310.80000	
GRADIENT	.01053	.00074	.00046	.00123	.00194	.00166	.00398	.00304	.00014	-.00000		

RUN NO.	Q/ Q	RM/L =	1.74	GRADIENT INTERVAL =	-5.00/	5.00
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	0.00	0.00	0.00	0.00	0.00
32	0.00	0.00	0.00	0.00	0.00	0.00
33	0.00	0.00	0.00	0.00	0.00	0.00
34	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00
37	0.00	0.00	0.00	0.00	0.00	0.00
38	0.00	0.00	0.00	0.00	0.00	0.00
39	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00
41	0.00	0.00	0.00	0.00	0.00	0.00
42	0.00	0.00	0.00	0.00	0.00	0.00
43	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00
46	0.00	0.00	0.00	0.00	0.00	0.00
47	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00
49	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00	0.00
52	0.00	0.00	0.00	0.00	0.00	0.00
53	0.00	0.00	0.00	0.00	0.00	0.00
54	0.00	0.00	0.00			

	BETA	Q-R	Q-E1	Q-E2	Q-E3	Q-E4	Q-E5	Q-E6	Q-E7	Q-E8	Q-E9	Q-E10	Q-E11	Q-E12	Q-E13	Q-E14	Q-E15	Q-E16	Q-E17	Q-E18	Q-E19	Q-E20	Q-E21	Q-E22	Q-E23	Q-E24	Q-E25	Q-E26	Q-E27	Q-E28	Q-E29	Q-E30	Q-E31	Q-E32	Q-E33	Q-E34	Q-E35	Q-E36	Q-E37	Q-E38	Q-E39	Q-E40	Q-E41	Q-E42	Q-E43	Q-E44	Q-E45	Q-E46	Q-E47	Q-E48	Q-E49	Q-E50	Q-E51	Q-E52	Q-E53	Q-E54	Q-E55	Q-E56	Q-E57	Q-E58	Q-E59	Q-E60	Q-E61	Q-E62	Q-E63	Q-E64	Q-E65	Q-E66	Q-E67	Q-E68	Q-E69	Q-E70	Q-E71	Q-E72	Q-E73	Q-E74	Q-E75	Q-E76	Q-E77	Q-E78	Q-E79	Q-E80	Q-E81	Q-E82	Q-E83	Q-E84	Q-E85	Q-E86	Q-E87	Q-E88	Q-E89	Q-E90	Q-E91	Q-E92	Q-E93	Q-E94	Q-E95	Q-E96	Q-E97	Q-E98	Q-E99	Q-E100	Q-E101	Q-E102	Q-E103	Q-E104	Q-E105	Q-E106	Q-E107	Q-E108	Q-E109	Q-E110	Q-E111	Q-E112	Q-E113	Q-E114	Q-E115	Q-E116	Q-E117	Q-E118	Q-E119	Q-E120	Q-E121	Q-E122	Q-E123	Q-E124	Q-E125	Q-E126	Q-E127	Q-E128	Q-E129	Q-E130	Q-E131	Q-E132	Q-E133	Q-E134	Q-E135	Q-E136	Q-E137	Q-E138	Q-E139	Q-E140	Q-E141	Q-E142	Q-E143	Q-E144	Q-E145	Q-E146	Q-E147	Q-E148	Q-E149	Q-E150	Q-E151	Q-E152	Q-E153	Q-E154	Q-E155	Q-E156	Q-E157	Q-E158	Q-E159	Q-E160	Q-E161	Q-E162	Q-E163	Q-E164	Q-E165	Q-E166	Q-E167	Q-E168	Q-E169	Q-E170	Q-E171	Q-E172	Q-E173	Q-E174	Q-E175	Q-E176	Q-E177	Q-E178	Q-E179	Q-E180	Q-E181	Q-E182	Q-E183	Q-E184	Q-E185	Q-E186	Q-E187	Q-E188	Q-E189	Q-E190	Q-E191	Q-E192	Q-E193	Q-E194	Q-E195	Q-E196	Q-E197	Q-E198	Q-E199	Q-E200	Q-E201	Q-E202	Q-E203	Q-E204	Q-E205	Q-E206	Q-E207	Q-E208	Q-E209	Q-E210	Q-E211	Q-E212	Q-E213	Q-E214	Q-E215	Q-E216	Q-E217	Q-E218	Q-E219	Q-E220	Q-E221	Q-E222	Q-E223	Q-E224	Q-E225	Q-E226	Q-E227	Q-E228	Q-E229	Q-E230	Q-E231	Q-E232	Q-E233	Q-E234	Q-E235	Q-E236	Q-E237	Q-E238	Q-E239	Q-E240	Q-E241	Q-E242	Q-E243	Q-E244	Q-E245	Q-E246	Q-E247	Q-E248	Q-E249	Q-E250	Q-E251	Q-E252	Q-E253	Q-E254	Q-E255	Q-E256	Q-E257	Q-E258	Q-E259	Q-E260	Q-E261	Q-E262	Q-E263	Q-E264	Q-E265	Q-E266	Q-E267	Q-E268	Q-E269	Q-E270	Q-E271	Q-E272	Q-E273	Q-E274	Q-E275	Q-E276	Q-E277	Q-E278	Q-E279	Q-E280	Q-E281	Q-E282	Q-E283	Q-E284	Q-E285	Q-E286	Q-E287	Q-E288	Q-E289	Q-E290	Q-E291	Q-E292	Q-E293	Q-E294	Q-E295	Q-E296	Q-E297	Q-E298	Q-E299	Q-E300	Q-E301	Q-E302	Q-E303	Q-E304	Q-E305	Q-E306	Q-E307	Q-E308	Q-E309	Q-E310	Q-E311	Q-E312	Q-E313	Q-E314	Q-E315	Q-E316	Q-E317	Q-E318	Q-E319	Q-E320	Q-E321	Q-E322	Q-E323	Q-E324	Q-E325	Q-E326	Q-E327	Q-E328	Q-E329	Q-E330	Q-E331	Q-E332	Q-E333	Q-E334	Q-E335	Q-E336	Q-E337	Q-E338	Q-E339	Q-E340	Q-E341	Q-E342	Q-E343	Q-E344	Q-E345	Q-E346	Q-E347	Q-E348	Q-E349	Q-E350	Q-E351	Q-E352	Q-E353	Q-E354	Q-E355	Q-E356	Q-E357	Q-E358	Q-E359	Q-E360	Q-E361	Q-E362	Q-E363	Q-E364	Q-E365	Q-E366	Q-E367	Q-E368	Q-E369	Q-E370	Q-E371	Q-E372	Q-E373	Q-E374	Q-E375	Q-E376	Q-E377	Q-E378	Q-E379	Q-E380	Q-E381	Q-E382	Q-E383	Q-E384	Q-E385	Q-E386	Q-E387	Q-E388	Q-E389	Q-E390	Q-E391	Q-E392	Q-E393	Q-E394	Q-E395	Q-E396	Q-E397	Q-E398	Q-E399	Q-E400	Q-E401	Q-E402	Q-E403	Q-E404	Q-E405	Q-E406	Q-E407	Q-E408	Q-E409	Q-E410	Q-E411	Q-E412	Q-E413	Q-E414	Q-E415	Q-E416	Q-E417	Q-E4
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RUN NO. 0/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	Q-R	Q-E1	Q-E0	Q-E1	Q-E2	Q-L	Q-L1	Q-L2	Q-L3	Q-L4	Q-L5	Q-L6	Q-L7	Q-L8	Q-L9	Q-L10	Q-L11	Q-L12	Q-L13	Q-L14	Q-L15	Q-L16	Q-L17	Q-L18	Q-L19	Q-L20	Q-L21	Q-L22	Q-L23	Q-L24	Q-L25	Q-L26	Q-L27	Q-L28	Q-L29	Q-L30	Q-L31	Q-L32	Q-L33	Q-L34	Q-L35	Q-L36	Q-L37	Q-L38	Q-L39	Q-L40	Q-L41	Q-L42	Q-L43	Q-L44	Q-L45	Q-L46	Q-L47	Q-L48	Q-L49	Q-L50	Q-L51	Q-L52	Q-L53	Q-L54	Q-L55	Q-L56	Q-L57	Q-L58	Q-L59	Q-L60	Q-L61	Q-L62	Q-L63	Q-L64	Q-L65	Q-L66	Q-L67	Q-L68	Q-L69	Q-L70	Q-L71	Q-L72	Q-L73	Q-L74	Q-L75	Q-L76	Q-L77	Q-L78	Q-L79	Q-L80	Q-L81	Q-L82	Q-L83	Q-L84	Q-L85	Q-L86	Q-L87	Q-L88	Q-L89	Q-L90	Q-L91	Q-L92	Q-L93	Q-L94	Q-L95	Q-L96	Q-L97	Q-L98	Q-L99	Q-L100	Q-L101	Q-L102	Q-L103	Q-L104	Q-L105	Q-L106	Q-L107	Q-L108	Q-L109	Q-L110	Q-L111	Q-L112	Q-L113	Q-L114	Q-L115	Q-L116	Q-L117	Q-L118	Q-L119	Q-L120	Q-L121	Q-L122	Q-L123	Q-L124	Q-L125	Q-L126	Q-L127	Q-L128	Q-L129	Q-L130	Q-L131	Q-L132	Q-L133	Q-L134	Q-L135	Q-L136	Q-L137	Q-L138	Q-L139	Q-L140	Q-L141	Q-L142	Q-L143	Q-L144	Q-L145	Q-L146	Q-L147	Q-L148	Q-L149	Q-L150	Q-L151	Q-L152	Q-L153	Q-L154	Q-L155	Q-L156	Q-L157	Q-L158	Q-L159	Q-L160	Q-L161	Q-L162	Q-L163	Q-L164	Q-L165	Q-L166	Q-L167	Q-L168	Q-L169	Q-L170	Q-L171	Q-L172	Q-L173	Q-L174	Q-L175	Q-L176	Q-L177	Q-L178	Q-L179	Q-L180	Q-L181	Q-L182	Q-L183	Q-L184	Q-L185	Q-L186	Q-L187	Q-L188	Q-L189	Q-L190	Q-L191	Q-L192	Q-L193	Q-L194	Q-L195	Q-L196	Q-L197	Q-L198	Q-L199	Q-L200	Q-L201	Q-L202	Q-L203	Q-L204	Q-L205	Q-L206	Q-L207	Q-L208	Q-L209	Q-L210	Q-L211	Q-L212	Q-L213	Q-L214	Q-L215	Q-L216	Q-L217	Q-L218	Q-L219	Q-L220	Q-L221	Q-L222	Q-L223	Q-L224	Q-L225	Q-L226	Q-L227	Q-L228	Q-L229	Q-L230	Q-L231	Q-L232	Q-L233	Q-L234	Q-L235	Q-L236	Q-L237	Q-L238	Q-L239	Q-L240	Q-L241	Q-L242	Q-L243	Q-L244	Q-L245	Q-L246	Q-L247	Q-L248	Q-L249	Q-L250	Q-L251	Q-L252	Q-L253	Q-L254	Q-L255	Q-L256	Q-L257	Q-L258	Q-L259	Q-L260	Q-L261	Q-L262	Q-L263	Q-L264	Q-L265	Q-L266	Q-L267	Q-L268	Q-L269	Q-L270	Q-L271	Q-L272	Q-L273	Q-L274	Q-L275	Q-L276	Q-L277	Q-L278	Q-L279	Q-L280	Q-L281	Q-L282	Q-L283	Q-L284	Q-L285	Q-L286	Q-L287	Q-L288	Q-L289	Q-L290	Q-L291	Q-L292	Q-L293	Q-L294	Q-L295	Q-L296	Q-L297	Q-L298	Q-L299	Q-L300	Q-L301	Q-L302	Q-L303	Q-L304	Q-L305	Q-L306	Q-L307	Q-L308	Q-L309	Q-L310	Q-L311	Q-L312	Q-L313	Q-L314	Q-L315	Q-L316	Q-L317	Q-L318	Q-L319	Q-L320	Q-L321	Q-L322	Q-L323	Q-L324	Q-L325	Q-L326	Q-L327	Q-L328	Q-L329	Q-L330	Q-L331	Q-L332	Q-L333	Q-L334	Q-L335	Q-L336	Q-L337	Q-L338	Q-L339	Q-L340	Q-L341	Q-L342	Q-L343	Q-L344	Q-L345	Q-L346	Q-L347	Q-L348	Q-L349	Q-L350	Q-L351	Q-L352	Q-L353	Q-L354	Q-L355	Q-L356	Q-L357	Q-L358	Q-L359	Q-L360	Q-L361	Q-L362	Q-L363	Q-L364	Q-L365	Q-L366	Q-L367	Q-L368	Q-L369	Q-L370	Q-L371	Q-L372	Q-L373	Q-L374	Q-L375	Q-L376	Q-L377	Q-L378	Q-L379	Q-L380	Q-L381	Q-L382	Q-L383	Q-L384	Q-L385	Q-L386	Q-L387	Q-L388	Q-L389	Q-L390	Q-L391	Q-L392	Q-L393	Q-L394	Q-L395	Q-L396	Q-L397	Q-L398	Q-L399	Q-L400	Q-L401	Q-L402	Q-L403	Q-L404	Q-L405	Q-L406	Q-L407	Q-L408	Q-L409	Q-L410	Q-L411	Q-L412	Q-L413	Q-L41
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ARC 87-747 Q453C B C M F W Y MON. RM/L

082036) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.      XMRP = 32.3010 IN.  
 LREF = 14.2445 IN.      YMRP = .5500 IN.  
 ZREF = 20.1554 IN.      ZMRP = 11.2500 IN.  
 SCALE = .5355 SCALE

ALPHA =  
AIRLON =  
SPDRK =  
ELEV-L =

### PARAMETRIC DATA

RUN NO. 459/0 RM/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	QAR	QHE1	QHEO	CHET	CHUL	CHUL	CHUR	CHLR	CHBF	Q
-2.2, 4.98	-4.733	.04960	-.04100	-.02690	-.06790	-.03110	-.02130	-.05390	-.04810	-.02480	311.50000
2.2, 4.98	-2.723	.07160	-.04320	-.02700	-.07020	-.02370	-.01950	-.06090	-.05390	-.02240	311.50000
2.2, 4.98	-.707	.09360	-.04430	-.02680	-.07110	-.01990	-.01560	-.06760	-.06140	-.04640	311.50000
2.2, 4.98	.300	.10610	-.04360	-.02680	-.07040	-.01750	-.01360	-.07180	-.06340	-.01910	311.50000
2.2, 4.98	1.305	.11760	-.04350	-.02640	-.06940	-.01540	-.01230	-.07570	-.06970	-.02080	311.50000
2.2, 4.98	3.322	.14410	-.04090	-.02640	-.06740	-.01500	-.00920	-.06610	-.08210	-.01960	311.50000
2.2, 4.98	5.336	.16360	-.03760	-.02640	-.06400	-.01380	-.00750	-.09300	-.09190	-.02340	311.50000
2.2, 4.98	7.354	.18080	-.03470	-.02640	-.06110	-.00980	-.00670	-.10110	-.09610	-.02130	311.50000
2.2, 4.98	9.379	.20030	-.03140	-.02620	-.05760	-.00560	-.00220	-.11980	-.10010	-.02430	311.50000
GRADIENT		.01165	-.00000	.00008	.00006	.00204	.00157	-.00391	-.00412	.00074	.00000

RUN NO. 462/ 0 RNL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CHR	CH1	CH2	CH3	CH4	CH5	CH6	q
3.551	-4.719	.03550	-.03430	-.02090	-.05820	-.03830	-.04170	-.01740	282.30000
3.551	-2.675	.05080	-.03570	-.02150	-.05670	-.04890	-.04580	-.02220	282.30000
3.551	-.628	.07860	-.03480	-.02150	-.03580	-.05640	-.05010	-.01760	282.30000
3.551	.390	.08770	-.03430	-.02080	-.05510	-.06130	-.05290	-.01510	282.30000
3.551	1.422	.09980	-.03290	-.02050	-.05350	-.06550	-.05740	-.01480	282.30000
3.551	3.464	.12340	-.03120	-.02090	-.05210	-.07230	-.07050	-.01880	282.30000
3.551	5.516	.14170	-.02870	-.02150	-.05090	-.07860	-.07890	-.03970	282.30000
3.551	7.563	.16090	-.02750	-.02090	-.04850	-.08510	-.08440	-.01990	282.30000
3.551	9.611	.17970	-.02590	-.02120	-.04630	-.09360	-.09560	-.02160	282.30000
GRADIENT		.01555	.05042	.00003	.05044	.00188	-.05033	.00028	-.00000

RUN NO. 465/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	CHK	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
WACH	-4.922	0.1190	-0.02820	-0.02230	-0.01330	-0.02310	-0.02430	-0.01300	247.00000
	-2.811	0.0400	-0.02890	-0.01920	-0.01060	-0.03430	-0.03630	-0.01270	247.00000
	-704	0.0360	-0.02880	-0.01520	-0.00970	-0.04460	-0.04760	-0.01270	247.00000
	333	0.07930	-0.02790	-0.01140	-0.00620	-0.04950	-0.04720	-0.01560	247.00000
	1.409	0.08060	-0.02790	-0.01040	-0.00600	-0.03440	-0.03060	-0.01170	247.00000
	3.517	0.1030	-0.02700	-0.00800	-0.00460	-0.06170	-0.06120	-0.01170	247.00000
	5.632	0.12780	-0.02360	-0.00580	-0.00300	-0.06790	-0.06870	-0.01650	247.00000
	7.737	0.1930	-0.02390	-0.00450	-0.00120	-0.07280	-0.07280	-0.06480	247.00000
	9.853	0.15020	-0.02180	-0.00350	0.00040	-0.07740	-0.07650	-0.01590	247.00000
CRACDIT	0.1167	0.00216	0.00015	0.00181	0.00107	0.00484	-0.00416	0.00012	0.00000

DATE 15 JUL 74

TABULATED SOURCE DATA - ON55C

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ARC 87-747 ON55C B C M F W V NOM. RN/L

08E037) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1554 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 20.000 ELEVON = .050  
 AILEON = .000 BDFLAP = -11.700  
 SPDRK = 25.000 RUDDER = -10.000  
 ELE-L = .000 ELEV-R = .000

RUN NO. 460/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CHR	CHET	CHCO	CHUL	CHLL	CHUR	CHLR	CHLF	Q
2.498	-4.796	.06930	-.09610	-.05010	-.02050	-.00150	-.04030	-.05110	-.06220	314.10000
2.498	-2.725	.08960	-.09940	-.05100	-.01890	-.00150	-.03750	-.05270	-.05780	314.10000
2.498	-.722	.06870	-.10640	-.05160	-.01560	-.00290	-.05890	-.04850	-.05530	314.10000
2.498	.281	.08505	-.10110	-.05240	-.01660	-.00290	-.06110	-.04340	-.05590	314.10000
2.498	1.287	.07960	-.10110	-.05240	-.01530	-.00500	-.06230	-.03760	-.05790	314.10000
2.498	3.317	.07350	-.10110	-.05340	-.01440	-.00830	-.06720	-.02990	-.05500	314.10000
2.498	5.342	.06750	-.10060	-.05380	-.01160	-.01150	-.06720	-.02340	-.06050	314.10000
2.498	7.367	.06310	-.10540	-.05420	-.00600	-.01000	-.06.40	-.03170	-.05950	314.10000
2.498	9.390	.10350	-.09850	-.05430	-.00330	-.00750	-.06950	-.04460	-.06120	314.10000
GRADIENT	.05522	-.00560	-.05540	-.05599	.00077	-.00081	-.00292	.00287	.00073	-.00000

RUN NO. 463/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CHR	CHET	CHCO	CHUL	CHLL	CHUR	CHLR	CHLF	Q
3.501	-4.710	.03720	-.08030	-.04210	-.01890	-.00140	-.02520	-.03240	-.04850	283.40000
3.501	-2.676	.06650	-.08210	-.04320	-.01570	-.00110	-.04190	-.03400	-.04710	283.40000
3.501	-.632	.07010	-.08330	-.04430	-.01220	-.00110	-.04840	-.03500	-.04560	283.40000
3.501	.379	.06210	-.08350	-.04440	-.01240	-.00180	-.04860	-.02770	-.04480	283.40000
3.501	1.410	.05630	-.08390	-.04430	-.01240	-.00340	-.04920	-.02290	-.04540	283.40000
3.501	3.465	.05360	-.08400	-.04450	-.01130	-.00720	-.05470	-.01740	-.04730	283.40000
3.501	5.517	.06090	-.08420	-.04490	-.00800	-.00740	-.05340	-.02290	-.05050	283.40000
3.501	7.575	.07960	-.08470	-.04630	-.00370	-.00600	-.05620	-.03500	-.04820	283.40000
3.501	9.627	.09820	-.08430	-.04740	-.00480	-.00420	-.06130	-.04590	-.05050	283.40000
GRADIENT	.05108	-.00046	-.05020	-.05076	.00092	-.00065	-.00327	.00247	.00024	.00000

RUN NO. 466/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CHR	CHET	CHCO	CHUL	CHLL	CHUR	CHLR	CHLF	Q
3.496	-4.918	.01610	-.06740	-.03600	-.01570	-.00260	-.01520	-.01920	-.04090	249.20000
3.496	-2.811	.04360	-.06950	-.03640	-.01310	-.00170	-.02830	-.03030	-.04380	249.20000
3.496	-.714	.05020	-.07050	-.03680	-.00940	-.00160	-.03820	-.02290	-.04090	249.20000
3.496	.338	.04710	-.07120	-.03700	-.00890	-.00140	-.03900	-.01850	-.03770	249.20000
3.496	1.398	.04640	-.07250	-.03750	-.00890	-.00170	-.03910	-.01800	-.04120	249.20000
3.496	3.515	.04610	-.07260	-.03900	-.00800	-.00490	-.04370	-.01530	-.04090	249.20000
3.496	5.631	.06070	-.07240	-.04010	-.00560	-.00400	-.04440	-.02590	-.04120	249.20000
3.496	7.750	.07260	-.07260	-.04110	-.00490	-.00260	-.04750	-.03310	-.03830	249.20000
3.496	9.865	.08410	-.07210	-.04250	-.00420	-.00160	-.04990	-.03990	-.04250	249.20000
GRADIENT	.00303	-.00062	-.00062	-.00033	.00095	-.00019	-.00327	.00099	.00019	-.00000

ARC 87-747 QAS3C B C M F M V NOM. RN/L

(BEL038) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = .000  
 AILRON = .000 BCLAP = -11.700  
 SPDRK = 85.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 482/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHP	CHET	CHL	CHLL	CHLR	CHBF	Q
2.498	-1.577	-0.00770	.02660	-0.00200	.02650	-1.7870	-1.1660	-1.7470
2.498	-0.97	-0.00740	.02430	-0.01150	.02280	-1.7800	-1.1660	-1.7430
2.498	1.422	-0.00870	.01360	-0.00330	.00830	-1.7460	-1.1640	-1.7060
2.498	3.447	-0.00720	.00070	-0.01030	.00100	-1.6990	-1.1600	-1.6650
2.498	5.470	-0.00370	-0.01560	-0.01490	.03050	-1.6460	-1.15670	-1.6150
2.498	7.509	-0.00340	-0.02770	-0.01990	.04760	-1.5770	-1.15250	-1.5590
2.498	9.526	-0.00550	-0.03960	-0.02480	.06430	-1.5150	-1.14900	-1.4890
2.498	12.590	-0.00520	-0.05510	-0.03190	.08700	-1.4520	-1.14650	-1.4220
2.498	15.640	-0.00520	-0.07200	-0.03950	.11150	-1.4140	-1.14570	-1.3820
2.498	18.690	-0.00330	-0.08910	-0.04750	.13660	-1.3840	-1.13230	-1.3480
2.498	21.750	-0.00600	-0.10890	-0.05570	.16470	-1.3140	-1.09320	-1.2770
2.498	24.800	-0.00630	-0.12900	-0.06450	.19350	-1.2180	-1.06090	-1.1610
2.498	27.350	-0.00640	-0.14620	-0.07190	.21810	-1.0020	-1.04510	-1.0390
GRADIENT		.00005	-.00687	-.00250	.00939	.00222	.00168	.00211

RUN NO. 486/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHP	CHET	CHL	CHLL	CHLR	CHBF	Q
3.001	-1.605	-0.00610	.01520	-0.00050	.01570	-1.5810	-1.14570	-1.5050
3.001	-1.147	-0.00160	.01410	-0.00020	.01430	-1.5820	-1.14320	-1.5060
3.001	1.366	-0.00080	.00580	-0.00260	.00330	-1.5200	-1.14200	-1.4930
3.001	3.390	-0.00090	-0.00450	-0.00650	.01110	-1.4840	-1.13950	-1.4440
3.001	5.423	-0.00140	-0.01420	-0.01040	.02460	-1.4650	-1.13700	-1.4470
3.001	7.438	-0.00300	-0.02230	-0.01430	.03660	-1.4140	-1.13030	-1.4020
3.001	9.466	-0.00080	-0.03070	-0.01880	.04960	-1.3620	-1.12730	-1.3440
3.001	12.500	-0.00110	-0.04370	-0.02510	.06880	-1.2980	-1.12630	-1.2820
3.001	15.560	-0.00210	-0.05860	-0.03210	.09560	-1.2270	-1.11940	-1.2090
3.001	18.590	-0.00350	-0.07400	-0.03970	.11370	-1.1730	-1.09430	-1.1460
3.001	21.640	-0.00340	-0.09050	-0.04730	.13780	-1.0910	-1.05760	-1.0570
3.001	24.690	-0.00510	-0.10780	-0.05540	.16320	-1.0910	-1.0470	-1.0490
3.001	27.230	-0.00360	-0.12480	-0.06210	.18690	-1.0680	-1.03290	-1.06630
GRADIENT		.00145	-.00006	-.00180	.00687	.00238	.00136	.00155

DATE 15 JUL 74

TABULATED SOURCE DATA - OAS5C

PAGE 223

ARC 87-747 OAS5C B C M F M V NOM. RM/L

08038) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 54. FT. 100RP = 32.3010 IN.  
LREF = 14.2440 IN. YREF = .0000 IN.  
BREF = 28.1004 IN. ZREF = 11.2550 IN.  
SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
AILRON = .000 BIDFLAP = -11.700  
SPDRBK = 85.000 RUDDER = .000  
ELEV-L = .000 ELEV-R = .000

RUN NO. 490/ 0 RM/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHP	CHCI	CHCO	CHCT	CHIL	CHLL	CHLR	CHLF	Q
3.496	-1.852	-0.0430	.00980	.00060	.01060	-1.1270	-1.1260	-1.1310	.00350	254.10000
3.496	-1.397	-0.0220	.00930	.00250	.00960	-1.1030	-1.1250	-1.1300	.00350	254.10000
3.496	1.117	.00000	.00360	-.00130	.00210	-1.1230	-1.1270	-1.1300	.00000	254.10000
3.496	3.136	-.00010	-.00310	-.00440	-.00950	-1.1200	-1.1260	-1.1340	-.00190	254.10000
3.496	5.152	.00160	-.01210	-.00790	-.01990	-1.1210	-1.1260	-1.1320	-.00160	254.10000
3.496	7.178	.00190	-.01860	-.01130	-.02990	-1.1240	-1.1190	-1.1270	-.00440	254.10000
3.496	9.203	.00340	-.02550	-.01320	-.04060	-1.1170	-1.1170	-1.1220	-.00700	254.10000
3.496	12.230	.00060	-.03710	-.02130	-.05940	-1.1140	-1.1140	-1.1170	-.01230	254.10000
3.496	15.260	.00710	-.04910	-.02660	-.07590	-1.0980	-.09210	-1.0220	-.01830	254.10000
3.496	18.300	.00620	-.06320	-.03270	-.09580	-1.1010	-.06170	-1.0720	-.02880	254.10000
3.496	21.340	.00180	-.07820	-.03940	-.11770	-.08900	-.03890	-.04670	-.03700	254.10000
3.496	24.390	.00470	-.09430	-.04720	-.14150	-.06560	-.02800	-.03600	-.04940	254.10000
3.496	26.920	.00530	-.10940	-.05400	-.16340	-.05040	-.02220	-.03110	-.06300	254.10000
GRADIENT		.00095	-.00383	-.00133	-.00516	.00304	-.00057	-.00062	-.00146	.00000

ARC 87-747 QAS3C B C M F M V NON. RNVL

(07039) (07 MAR 74)

## REFERENCE DATA

SAEF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1024 IN. ZMRP = 11.2505 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AIRLON = .000 BDFLAP = -11.700  
 SPDRK = 65.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 479/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	QMR	QMEI	QCEO	QNET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-4.652	-12920	.01830	-.00400	.01430	-.18910	-.19970	-.12150	-.13810	.00080	317.30000
2.498	-2.673	-.06660	.01860	-.00340	.01520	-.18420	-.18520	-.15510	-.14780	.00200	317.30000
2.498	-.606	-.02950	.02040	-.00230	.01810	-.18010	-.17420	-.17000	-.15480	.00080	317.30000
2.498	.303	-.01020	.02150	-.00160	.01990	-.17780	-.16620	-.17230	-.16140	.00050	317.30000
2.498	1.327	.01090	.02150	-.00080	.02090	-.17330	-.16070	-.17600	-.16880	.00080	317.30000
2.498	3.355	.04650	.02390	.00020	.02410	-.16100	-.14460	-.18130	-.18040	.00030	317.30000
2.498	5.430	.10920	.02800	.00070	.02860	-.15050	-.14460	-.18700	-.19740	-.01160	317.30000
2.498	7.062	.17500	.03150	.00110	.03260	-.09830	-.13050	-.18960	-.21210	.00000	317.30000
2.498	GRADIENT	.02140	.00071	-.00079	-.00008	.00328	.00581	-.00707	-.00523	-.00012	.00000

RUN NO. 483/ 0 RNVL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	QMR	QMEI	QCEO	QNET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-4.626	-.16370	.00750	-.00310	.00450	-.18770	-.17910	-.08890	-.11610	.00110	286.00000
3.001	-2.609	-.15460	.00870	-.00220	.00650	-.17960	-.16630	-.11560	-.13070	-.00890	286.00000
3.001	-.604	-.04010	.01110	-.00070	.01040	-.16650	-.15200	-.13860	-.13980	.00310	286.00000
3.001	.396	-.00670	.01230	-.00030	.01200	-.15740	-.14500	-.14950	-.14630	.00140	286.00000
3.001	1.444	.02850	.01390	.00020	.01330	-.14620	-.13980	-.16790	-.15380	.00220	286.00000
3.001	3.520	.06570	.01540	.00070	.01610	-.11760	-.13170	-.16990	-.16510	.00220	286.00000
3.001	5.602	.14710	.01900	.00160	.02050	-.09540	-.11740	-.17850	-.18130	.03140	286.00000
3.001	7.259	.19700	.02140	.00200	.02350	-.08150	-.10000	-.18410	-.19440	.00000	286.00000
3.001	GRADIENT	.03109	.00099	.00050	.00148	.00843	.00602	-.001073	-.00593	.01629	-.00000

RUN NO. 487/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	QMR	QMEI	QCEO	QNET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.633	-.18490	.00220	-.00150	.00070	-.18420	-.16830	-.07370	-.09390	-.00030	252.30000
3.496	-2.754	-.11920	.00320	-.00070	.00250	-.16530	-.15480	-.08740	-.11350	.00250	252.30000
3.496	-.677	-.04350	.00590	-.00020	.00600	-.14500	-.13890	-.11160	-.12880	.00000	252.30000
3.496	.357	-.00510	.00750	-.00070	.00820	-.13120	-.12830	-.12190	-.13250	.00350	252.30000
3.496	1.433	.03420	.00640	.00050	.00890	-.11950	-.12140	-.13410	-.14100	.00030	252.30000
3.496	3.562	.10030	.01090	.00120	.01200	-.09610	-.11150	-.15240	-.15540	.00030	252.30000
3.496	5.725	.17200	.01340	.00160	.01520	-.07590	-.09260	-.17100	-.16960	.00350	252.30000
3.496	7.423	.22570	.01420	.00160	.01780	-.06700	-.07300	-.18230	-.18230	.00130	252.30000
3.496	GRADIENT	.03455	.00108	.00032	.00140	.01059	.00707	-.00975	-.00715	.00000	-.00000



MAR 07-747 0435C 0 C M F M V MON. EN/L

081040) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.      DREF = 32.3010 IN.  
 LREF = 14.2440 IN.      YREF = .0003 IN.  
 BREF = 20.1554 IN.      ZREF = 11.2500 IN.  
 SCALE = .0355 SCALE

ALPHA =  
AIRON =  
SPDBK =  
ELEVL =

ELEVON =	.000
SCFLAP =	-11.700
RUDDER =	.000
ELEV-R =	.000

## PARAMETRIC CATA

RUN NO. 401/0 RMV = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	CH11	CH12	CH13	CH14	CH15	CH16	CH17	CH18	CH19	CH20	CH21	CH22	CH23	CH24	CH25	CH26	CH27	CH28	CH29	CH30	CH31	CH32	CH33	CH34	CH35	CH36	CH37	CH38	CH39	CH40	CH41	CH42	CH43	CH44	CH45	CH46	CH47	CH48	CH49	CH50	CH51	CH52	CH53	CH54	CH55	CH56	CH57	CH58	CH59	CH60	CH61	CH62	CH63	CH64	CH65	CH66	CH67	CH68	CH69	CH70	CH71	CH72	CH73	CH74	CH75	CH76	CH77	CH78	CH79	CH80	CH81	CH82	CH83	CH84	CH85	CH86	CH87	CH88	CH89	CH90	CH91	CH92	CH93	CH94	CH95	CH96	CH97	CH98	CH99	CH100	CH101	CH102	CH103	CH104	CH105	CH106	CH107	CH108	CH109	CH110	CH111	CH112	CH113	CH114	CH115	CH116	CH117	CH118	CH119	CH120	CH121	CH122	CH123	CH124	CH125	CH126	CH127	CH128	CH129	CH130	CH131	CH132	CH133	CH134	CH135	CH136	CH137	CH138	CH139	CH140	CH141	CH142	CH143	CH144	CH145	CH146	CH147	CH148	CH149	CH150	CH151	CH152	CH153	CH154	CH155	CH156	CH157	CH158	CH159	CH160	CH161	CH162	CH163	CH164	CH165	CH166	CH167	CH168	CH169	CH170	CH171	CH172	CH173	CH174	CH175	CH176	CH177	CH178	CH179	CH180	CH181	CH182	CH183	CH184	CH185	CH186	CH187	CH188	CH189	CH190	CH191	CH192	CH193	CH194	CH195	CH196	CH197	CH198	CH199	CH200	CH201	CH202	CH203	CH204	CH205	CH206	CH207	CH208	CH209	CH210	CH211	CH212	CH213	CH214	CH215	CH216	CH217	CH218	CH219	CH220	CH221	CH222	CH223	CH224	CH225	CH226	CH227	CH228	CH229	CH230	CH231	CH232	CH233	CH234	CH235	CH236	CH237	CH238	CH239	CH240	CH241	CH242	CH243	CH244	CH245	CH246	CH247	CH248	CH249	CH250	CH251	CH252	CH253	CH254	CH255	CH256	CH257	CH258	CH259	CH260	CH261	CH262	CH263	CH264	CH265	CH266	CH267	CH268	CH269	CH270	CH271	CH272	CH273	CH274	CH275	CH276	CH277	CH278	CH279	CH280	CH281	CH282	CH283	CH284	CH285	CH286	CH287	CH288	CH289	CH290	CH291	CH292	CH293	CH294	CH295	CH296	CH297	CH298	CH299	CH300	CH301	CH302	CH303	CH304	CH305	CH306	CH307	CH308	CH309	CH310	CH311	CH312	CH313	CH314	CH315	CH316	CH317	CH318	CH319	CH320	CH321	CH322	CH323	CH324	CH325	CH326	CH327	CH328	CH329	CH330	CH331	CH332	CH333	CH334	CH335	CH336	CH337	CH338	CH339	CH340	CH341	CH342	CH343	CH344	CH345	CH346	CH347	CH348	CH349	CH350	CH351	CH352	CH353	CH354	CH355	CH356	CH357	CH358	CH359	CH360	CH361	CH362	CH363	CH364	CH365	CH366	CH367	CH368	CH369	CH370	CH371	CH372	CH373	CH374	CH375	CH376	CH377	CH378	CH379	CH380	CH381	CH382	CH383	CH384	CH385	CH386	CH387	CH388	CH389	CH390	CH391	CH392	CH393	CH394	CH395	CH396	CH397	CH398	CH399	CH400	CH401	CH402	CH403	CH404	CH405	CH406	CH407	CH408	CH409	CH410	CH411	CH412	CH413	CH414	CH415	CH416	CH417	CH418	CH419	CH420	CH421	CH422	CH423	CH424	CH425	CH426	CH427	CH428	CH429	CH430	CH431	CH432	CH433	CH434	CH435	CH436	CH437	CH438	CH439	CH440	CH441	CH442	CH443	CH444	CH445	CH446	CH447	CH448	CH449	CH450	CH451	CH452	CH453	CH454	CH455	CH456	CH457	CH458	CH459	CH460	CH461	CH462	CH463	CH464	CH465	CH466	CH467	CH468	CH469	CH470	CH471	CH472	CH473	CH474	CH475	CH476	CH477	CH478	CH479	CH480	CH481	CH482	CH483	CH484	CH485	CH486	CH487	CH488	CH489	CH490	CH491	CH492	CH493	CH494	CH495	CH496	CH497	CH498	CH499	CH500
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RUN NO. 404/0 RNL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MOH	BETA	QIR	QET	QEO	QET	CHL	CHL	CHUR	CHLR	CHBF	Q
3.001	-4.712	-15060	-03510	-02040	-05550	-16050	-17250	-50600	-10160	-01260	206.00000
3.001	-2.668	-09560	-03570	-02030	-05600	-15260	-15650	-10170	-11160	-01210	206.00000
3.001	-0.631	-03480	-03520	-02030	-05540	-14060	-15030	-12250	-05180	-01180	206.00000
3.001	.398	-00160	-03460	-02020	-05400	-13400	-12760	-13120	-12890	-01040	206.00000
3.001	1.416	.03220	-03490	-02030	-05420	-12710	-12000	-13620	-14150	-01290	206.00000
3.001	3.460	.09000	-03180	-02010	-05190	-10930	-10950	-14890	-15980	-01070	206.00000
3.001	5.516	.14250	-02910	-02030	-04930	-08460	-10210	-15300	-17520	-01240	206.00000
3.001	7.375	.21280	-02780	-02030	-04820	-05950	-06350	-15960	-17000	-01260	206.00000
3.001	9.620	.27780	-02560	-02060	-04620	-03480	-03260	-16450	-18070	-01460	206.00000
GRADIENT	.02977	.00039	.00039	.00003	.00043	.00620	.00801	-.00854	-.00702	.00018	.00000

REFUN NO. 400/0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

PARAM	BETA	QMR	QMEI	QMEQ	QMET	QMLL	QMLR	CHLR	CHBF	Q
3.496	-4.918	-1.17320	-0.02860	-0.01580	-0.04430	-1.15130	-1.15240	-0.07610	-0.1110	252.705050
3.496	-2.804	-1.11170	-0.02930	-0.01550	-0.04490	-1.14250	-1.14630	-0.09540	-0.06060	252.705050
3.496	-0.690	-0.4250	-0.02870	-0.01620	-0.04500	-1.13070	-1.12780	-0.11310	-0.09590	252.705050
3.496	0.350	-0.00150	-0.02910	-0.01640	-0.04550	-1.12020	-1.11610	-0.12520	-0.07790	252.705050
3.496	1.408	0.04300	-0.02820	-0.01620	-0.04440	-1.07010	-1.06800	-0.13340	-0.06640	252.705050
3.496	3.533	1.0570	-0.02770	-0.01630	-0.04400	-0.08760	-0.08280	-0.15050	-0.06630	252.705050
3.496	5.628	1.7690	-0.02970	-0.01720	-0.04290	-0.05050	-0.05370	-0.15840	-0.06030	252.705050
3.496	7.737	2.3600	-0.02450	-0.01750	-0.04190	-0.03350	-0.03180	-0.15670	-0.01110	252.705050
3.496	9.832	2.6760	-0.02210	-0.01790	-0.03950	-0.02350	-0.01270	-0.15780	-0.00890	252.705050
GRADIENT		0.03376	0.00012	-0.00011	0.00003	0.00763	0.00754	-0.00904	-0.00038	-0.00000



EX-100 - VIET CONGO RELATIONS

DATE 07-14/03 BY C M F M V MON. RW/L

0000041) ( 57 MAR 74 )

# VIETNAMESE

SREF = 2.4210 SA.FT. WREP = 32.3010 IN.  
LEEF = 14.2445 IN. YREP = .0053 IN.  
BREF = 20.1064 IN. ZREP = 11.2500 IN.  
SCALE = .0355 SCALE

ALPHA =	20.000	ELEVON =	.000
AILON =	.000	BDFLAP =	-11.700
SPEEDK =	85.000	RUDER =	.000
ELEV-L =	.000	ELEV-R =	.000

### PARAMETRIC DATA

RUN NO. 461/ 0    ANVL = 1.75    GRADIENT INTERVAL = -5.00/ 5.00

BETA	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	CH11	CH12	CH13	CH14	CH15	CH16	CH17	CH18	CH19	CH20	CH21	CH22	CH23	CH24	CH25	CH26	CH27	CH28	CH29	CH30	CH31	CH32	CH33	CH34	CH35	CH36	CH37	CH38	CH39	CH40	CH41	CH42	CH43	CH44	CH45	CH46	CH47	CH48	CH49	CH50	CH51	CH52	CH53	CH54	CH55	CH56	CH57	CH58	CH59	CH60	CH61	CH62	CH63	CH64	CH65	CH66	CH67	CH68	CH69	CH70	CH71	CH72	CH73	CH74	CH75	CH76	CH77	CH78	CH79	CH80	CH81	CH82	CH83	CH84	CH85	CH86	CH87	CH88	CH89	CH90	CH91	CH92	CH93	CH94	CH95	CH96	CH97	CH98	CH99	CH100	CH101	CH102	CH103	CH104	CH105	CH106	CH107	CH108	CH109	CH110	CH111	CH112	CH113	CH114	CH115	CH116	CH117	CH118	CH119	CH120	CH121	CH122	CH123	CH124	CH125	CH126	CH127	CH128	CH129	CH130	CH131	CH132	CH133	CH134	CH135	CH136	CH137	CH138	CH139	CH140	CH141	CH142	CH143	CH144	CH145	CH146	CH147	CH148	CH149	CH150	CH151	CH152	CH153	CH154	CH155	CH156	CH157	CH158	CH159	CH160	CH161	CH162	CH163	CH164	CH165	CH166	CH167	CH168	CH169	CH170	CH171	CH172	CH173	CH174	CH175	CH176	CH177	CH178	CH179	CH180	CH181	CH182	CH183	CH184	CH185	CH186	CH187	CH188	CH189	CH190	CH191	CH192	CH193	CH194	CH195	CH196	CH197	CH198	CH199	CH200	CH201	CH202	CH203	CH204	CH205	CH206	CH207	CH208	CH209	CH210	CH211	CH212	CH213	CH214	CH215	CH216	CH217	CH218	CH219	CH220	CH221	CH222	CH223	CH224	CH225	CH226	CH227	CH228	CH229	CH230	CH231	CH232	CH233	CH234	CH235	CH236	CH237	CH238	CH239	CH240	CH241	CH242	CH243	CH244	CH245	CH246	CH247	CH248	CH249	CH250	CH251	CH252	CH253	CH254	CH255	CH256	CH257	CH258	CH259	CH260	CH261	CH262	CH263	CH264	CH265	CH266	CH267	CH268	CH269	CH270	CH271	CH272	CH273	CH274	CH275	CH276	CH277	CH278	CH279	CH280	CH281	CH282	CH283	CH284	CH285	CH286	CH287	CH288	CH289	CH290	CH291	CH292	CH293	CH294	CH295	CH296	CH297	CH298	CH299	CH300	CH301	CH302	CH303	CH304	CH305	CH306	CH307	CH308	CH309	CH310	CH311	CH312	CH313	CH314	CH315	CH316	CH317	CH318	CH319	CH320	CH321	CH322	CH323	CH324	CH325	CH326	CH327	CH328	CH329	CH330	CH331	CH332	CH333	CH334	CH335	CH336	CH337	CH338	CH339	CH340	CH341	CH342	CH343	CH344	CH345	CH346	CH347	CH348	CH349	CH350	CH351	CH352	CH353	CH354	CH355	CH356	CH357	CH358	CH359	CH360	CH361	CH362	CH363	CH364	CH365	CH366	CH367	CH368	CH369	CH370	CH371	CH372	CH373	CH374	CH375	CH376	CH377	CH378	CH379	CH380	CH381	CH382	CH383	CH384	CH385	CH386	CH387	CH388	CH389	CH390	CH391	CH392	CH393	CH394	CH395	CH396	CH397	CH398	CH399	CH400	CH401	CH402	CH403	CH404	CH405	CH406	CH407	CH408	CH409	CH410	CH411	CH412	CH413	CH414	CH415	CH416	CH417	CH418	CH419	CH420	CH421	CH422	CH423	CH424	CH425	CH426	CH427	CH428	CH429	CH430	CH431	CH432	CH433	CH434	CH435	CH436	CH437	CH438	CH439	CH440	CH441	CH442	CH443	CH444	CH445	CH446	CH447	CH448	CH449	CH450	CH451	CH452	CH453	CH454	CH455	CH456	CH457	CH458	CH459	CH460	CH461	CH462	CH463	CH464	CH465	CH466	CH467	CH468	CH469	CH470	CH471	CH472	CH473	CH474	CH475	CH476	CH477	CH478	CH479	CH480	CH481	CH482	CH483	CH484	CH485	CH486	CH487	CH488	CH489	CH490	CH491	CH492	CH493	CH494	CH495	CH496	CH497	CH498	CH499	CH500	CH501	CH502	CH503	CH504	CH505	CH506	CH507	CH508	CH509	CH510	CH511	CH512	CH513	CH514	CH515	CH516	CH517	CH518	CH519	CH520	CH521	CH522	CH523	CH524	CH525	CH526	CH527	CH528	CH529	CH530	CH531	CH532	CH533	CH534	CH535	CH536	CH537	CH538	CH539	CH540	CH541	CH542	CH543	CH544	CH545	CH546	CH547	CH548	CH549	CH550	CH551	CH552	CH553	CH554	CH555	CH556	CH557	CH558	CH559	CH560	CH561	CH562	CH563	CH564	CH565	CH566	CH567	CH568	CH569	CH570	CH571	CH572	CH573	CH574	CH575	CH576	CH577	CH578	CH579	CH580	CH581	CH582	CH583	CH584	CH585	CH586	CH587	CH588	CH589	CH590	CH591	CH592	CH593	CH594	CH595	CH596	CH597	CH598	CH599	CH600	CH601	CH602	CH603	CH604	CH605	CH606	CH607	CH608	CH609	CH610	CH611	CH612	CH613	CH614	CH615	CH616	CH617	CH618	CH619	CH620	CH621	CH622	CH623	CH624	CH625	CH626	CH627	CH628	CH629	CH630	CH631	CH632	CH633	CH634	CH635	CH636	CH637	CH638	CH639	CH640	CH641	CH642	CH643	CH644	CH645	CH646	CH647	CH648	CH649	CH650	CH651	CH652	CH653	CH654	CH655	CH656	CH657	CH658	CH659	CH660	CH661	CH662	CH663	CH664	CH665	CH666	CH667	CH668	CH669	CH670	CH671	CH672	CH673	CH674	CH675	CH676	CH677	CH678	CH679	CH680	CH681	CH682	CH683	CH684	CH685	CH686	CH687	CH688	CH689	CH690	CH691	CH692	CH693	CH694	CH695	CH696	CH697	CH698	CH699	CH700	CH701	CH702	CH703	CH704	CH705	CH706	CH707	CH708	CH709	CH710	CH711	CH712	CH713	CH714	CH715	CH716	CH717	CH718	CH719	CH720	CH721	CH722	CH723	CH724	CH725	CH726	CH727	CH728	CH729	CH730	CH731	CH732	CH733	CH734	CH735	CH736	CH737	CH738	CH739	CH740	CH741	CH742	CH743	CH744	CH745	CH746	CH747	CH748	CH749	CH750	CH751	CH752	CH753	CH754	CH755	CH756	CH757	CH758	CH759	CH760	CH761	CH762	CH763	CH764	CH765	CH766	CH767	CH768	CH769	CH770	CH771	CH772	CH773	CH774	CH775	CH776	CH777	CH778	CH779	CH780	CH781	CH782	CH783	CH784	CH785	CH786	CH787	CH788	CH789	CH790	CH791	CH792	CH793	CH794	CH795	CH796	CH797	CH798	CH799	CH800	CH801	CH802	CH803	CH804	CH805	CH806	CH807	CH808	CH809	CH810	CH811	CH812	CH813	CH814	CH815	CH816	CH817	CH818	CH819	CH820	CH821	CH822	CH823	CH824	CH825	CH826	CH827	CH828	CH829	CH830	CH831	CH832	CH833	CH834	CH835	CH836	CH837	CH838	CH839	CH840	CH841	CH842	CH843	CH844	CH845	CH846	CH847	CH848	CH849	CH850	CH851	CH852	CH853	CH854	CH855	CH856	CH857	CH858	CH859	CH860	CH861	CH862	CH863	CH864	CH865	CH866	CH867	CH868	CH869	CH870	CH871	CH872	CH873	CH874	CH875	CH876	CH877	CH878	CH879	CH880	CH881	CH882	CH883	CH884	CH885	CH886	CH887	CH888	CH889	CH890	CH891	CH892	CH893	CH894	CH895	CH896	CH897	CH898	CH899	CH900	CH901	CH902	CH903	CH904	CH905	CH906	CH907	CH908	CH909	CH910	CH911	CH912	CH913	CH914	CH915	CH916	CH917	CH918	CH919	CH920	CH921	CH922	CH923	CH924	CH925	CH926	CH927	CH928	CH929	CH930	CH931	CH932	CH933	CH934	CH935	CH936	CH937	CH938	CH939	CH940	CH941	CH942	CH943	CH944	CH945	CH946	CH947	CH948	CH949	CH950	CH951	CH952	CH953	CH954	CH955	CH956	CH957	CH958	CH959	CH960	CH961	CH962	CH963	CH964	CH965	CH966	CH967	CH968	CH969	CH970	CH971	CH972	CH973	CH974	CH975	CH976	CH977	CH978	CH979	CH980	CH981	CH982	CH983	CH984	CH985	CH986	CH987	CH988	CH989	CH990	CH991	CH992	CH993	CH994	CH995	CH996	CH997	CH998	CH999	CH1000	CH1001	CH1002	CH1003	CH1004	CH1005	CH1006	CH1007	CH1008	CH1009	CH1010	CH1011	CH1012	CH1013	CH1014	CH1015	CH1016	CH1017	CH1018	CH1019	CH1020	CH1021	CH1022	CH1023	CH1024	CH1025	CH1026	CH1027	CH1028	CH1029	CH1030	CH1031	CH1032	CH1033	CH1034	CH1035	CH1036	CH1037	CH1038	CH1039	CH1040	CH1041	CH1042	CH1043	CH1044	CH1045	CH1046	CH1047	CH1048	CH1049	CH1050	CH1051	CH1052	CH1053	CH1054	CH1055	CH1056	CH1057	CH1058	CH1059	CH1060	CH1061	CH1062	CH1063	CH1064	CH1065	CH1066	CH1067	CH1068	CH1069	CH1070	CH1071	CH1072	CH1073	CH1074	CH1075	CH1076	CH1077	CH1078	CH1079	CH1080	CH1081	CH1082	CH1083	CH1084	CH1085	CH1086	CH1087	CH1088	CH1089	CH1090	CH1091	CH1092	CH1093	CH1094	CH1095	CH1096	CH1097	CH1098	CH1099	CH1100	CH1101	CH1102	CH1103	CH1104	CH1105	CH1106	CH1107	CH1108	CH1109	CH1110	CH1111	CH1112	CH1113	CH1114	CH1115	CH1116	CH1117	CH1118	CH1119	CH1120	CH1121	CH1122	CH1123	CH1124	CH1125	CH1126	CH1127	CH1128	CH1129	CH1130	CH1131	CH1132	CH1133	CH1134	CH1135	CH1136	CH1137	CH1138	CH1139	CH1140	CH1141	CH1142	CH1143	CH1144	CH1145	CH1146	CH1147	CH1148	CH1149	CH1150	CH1151	CH1152	CH1153	CH1154	CH1155	CH1156	CH1157	CH1158	CH1159	CH1160	CH1161	CH1162	CH1163	CH1164	CH1165	CH1166	CH1167	CH1168	CH1169	CH1170	CH1171	CH1172	CH1173	CH1174	CH1175	CH1176	CH1177	CH1178	CH1179	CH1180	CH1181	CH1182	CH1183	CH1184	CH1185	CH1186	CH1187	CH1188	CH1189	CH1190	CH1191	CH1192	CH1193	CH1194	CH1195	CH1196	CH1197	CH1198	CH1199	CH1200	CH1201	CH1202	CH1203	CH1204	CH1205	CH1206	CH1207	CH1208	CH1209	CH1210	CH1211	CH1212	CH1213	CH1214	CH1215	CH1216	CH1217	CH1218	CH1219	CH1220	CH1221	CH1222	CH1223	CH1224	CH1225	CH1226	CH1227	CH1228	CH1229	CH1230	CH1231	CH1232	CH1233	CH1234	CH1235	CH1236	CH1237	CH1238	CH1239	CH1240	CH1241	CH1242	CH1243	CH1244	CH1245	CH1246	CH1247	CH1248	CH1249	CH1250	CH1251	CH1252	CH1253	CH1254	CH1255	CH1256	CH1257	CH1258	CH1259	CH1260	CH1261	CH1262	CH1263	CH1264	CH1265	CH1266	CH1267	CH1268	CH1269	CH1270	CH1271	CH1272	CH1273	CH1274	CH1275	CH1276	CH1277	CH1278	CH1279	CH1280	CH1281	CH1282	CH1283	CH1284	CH1285	CH1286	CH1287	CH1288	CH1289	CH1290	CH1291	CH1292	CH1293	CH1294	CH1295	CH1296	CH1297	CH1298	CH1299	CH1300	CH1301	CH1302	CH1303	CH1304	CH1305	CH1306	CH1307	CH1308	CH1309	CH1310	CH1311	CH1312	CH1313	CH1314	CH1315	CH1316	CH1317	CH1318	CH1319	CH1320	CH1321	CH1322	CH1323	CH1324	CH1325	CH1326	CH1327	CH1328	CH1329	CH1330	CH1331	CH1332	CH1333	CH1334	CH1335	CH1336	CH1337	CH1338	CH1339	CH1340	CH1341	CH1342	CH1343	CH1344	CH1345	CH1346	CH1347	CH1348
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RUN NO. 485/ 0 RM/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

ANCH	BETA	CH2	CH2I	CH2O	CH2T	CHUL	CHLL	CHUR	CHLR	CH8F	$\sigma$
3.001	-4.710	-0.3920	-0.0030	-0.0160	-12160	-10420	-0.04700	-0.04120	-0.7190	-0.04600	288.20000
3.001	-2.666	-0.3930	-0.0190	-0.0300	-12480	-11130	-0.03870	-0.05570	-1.0360	-0.04680	288.20000
3.001	-623	-0.2150	-0.0310	-0.0370	-12680	-11580	-0.06020	-0.10600	-0.9160	-0.04680	288.20000
3.001	360	-0.0380	-0.0310	-0.0380	-12700	-11250	-0.07070	-0.10930	-0.7960	-0.04210	288.20000
3.001	1.414	-0.1190	-0.0360	-0.0400	-12760	-10660	-0.08290	-0.11200	-0.6550	-0.04070	288.20000
3.001	3.475	-0.0920	-0.0370	-0.0350	-12720	-0.08570	-0.09620	-0.10810	-0.04460	-0.04230	288.20000
3.001	5.514	-0.0410	-0.0380	-0.0440	-12820	-0.04480	-0.06570	-0.09780	-0.03450	-0.04370	288.20000
3.001	7.578	-0.0160	-0.0390	-0.0450	-12930	-0.02640	-0.04000	-0.09340	-0.07450	-0.04350	288.20000
3.001	9.623	-0.1470	-0.0400	-0.0670	-13070	-0.01590	-0.02310	-0.09410	-0.08630	-0.04820	288.20000
6.001	-0.0135	-0.0742	-0.0024	-0.0060	-0.0060	-0.0185	-0.0095	-0.0063	-0.0428	-0.0069	288.20000

RUN NO. 469/0 RNL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	QAR	QHEI	QHEO	QHET	QHUL	QHLL	QHUR	CHLR	CHBF	Q
3.496	-4.915	-0.06440	-0.06760	-0.03560	-0.10320	-0.08750	-0.05130	-0.02640	-0.04800	-0.03990	253.80550
3.496	-2.811	-0.05405	-0.06930	-0.03620	-0.10340	-0.09530	-0.03490	-0.05850	-0.07770	-0.03800	253.80500
3.496	-7.711	-0.02540	-0.07000	-0.03590	-0.10460	-0.09330	-0.03490	-0.06620	-0.06750	-0.03285	253.80550
3.496	.338	-0.00410	-0.07110	-0.03690	-0.10800	-0.09520	-0.04610	-0.08930	-0.06510	-0.03510	253.80555
3.496	1.394	-0.00590	-0.07210	-0.03700	-0.10910	-0.08720	-0.05400	-0.08940	-0.04590	-0.03100	253.80500
3.496	3.312	-0.00110	-0.07200	-0.03640	-0.11040	-0.09920	-0.07010	-0.08950	-0.03920	-0.03290	253.80555
3.496	5.634	-0.07320	-0.07270	-0.03950	-0.11190	-0.02740	-0.04140	-0.03220	-0.03990	-0.03290	253.80555
3.496	7.746	-0.10770	-0.07260	-0.04040	-0.11290	-0.01500	-0.02270	-0.07600	-0.06740	-0.03760	253.80500
3.496	9.068	-0.19530	-0.07260	-0.04150	-0.11410	-0.00770	-0.01270	-0.08040	-0.07530	-0.03420	253.80555
GRADIENT		-0.00506	-0.00555	-0.00331	-0.00506	-0.02281	-0.0259	-0.00773	-0.0229	-0.0105	253.80500

ARC 87-747 CASE B C H F M Y MON. ENCL

**VIETNAM**

SEEF = 2.4216 SA.FT.      300P = 32.3010 IN.  
LEEF = 14.2449 IN.      700P = .0000 IN.  
000F = 20.1054 IN.      200P = 11.2500 IN.  
SCALE = .0005 SCALE

RUN NO. 410/0    BWL = 1.74    COEFFICIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	OMG	ONE1	ONEO	CNET	OML	OML1	CHUR	CHLR	CHBF	g
2.499	-0.567	-0.91189	-0.00240	-0.01200	-0.0440	-0.11850	-0.10440	-0.11480	-0.09630	-0.05300	324.90500
2.499	-0.103	-0.06630	-0.01330	-0.01330	-0.01980	-0.11780	-0.10350	-0.11450	-0.09510	-0.05500	324.90500
2.499	1.422	-0.01140	-0.01620	-0.01720	-0.03340	-0.11480	-0.10250	-0.11200	-0.09370	-0.00370	324.90500
2.499	3.442	-0.00910	-0.02950	-0.02260	-0.00230	-0.11040	-0.09850	-0.10820	-0.09140	-0.05220	324.90500
2.499	5.466	-0.00770	-0.04250	-0.02810	-0.07050	-0.10680	-0.09600	-0.10530	-0.08740	-0.00740	324.90500
2.499	7.497	-0.00700	-0.05000	-0.03390	-0.08990	-0.10270	-0.09335	-0.10090	-0.08640	-0.01110	324.90500
2.499	9.530	-0.00940	-0.06720	-0.03950	-0.10670	-0.09840	-0.09210	-0.09700	-0.08400	-0.01860	324.90500
2.499	12.560	-0.00900	-0.08400	-0.04760	-0.13150	-0.09450	-0.08820	-0.09320	-0.07820	-0.02350	324.90500
2.499	15.640	-0.01010	-0.10220	-0.05590	-0.15810	-0.09140	-0.08580	-0.08990	-0.07260	-0.03560	324.90500
2.499	18.690	-0.00940	-0.12260	-0.06530	-0.18790	-0.08710	-0.07820	-0.08670	-0.06690	-0.05000	324.90500
2.499	21.740	-0.00760	-0.14470	-0.07490	-0.21950	-0.07880	-0.05210	-0.07790	-0.04550	-0.26310	324.90500
2.499	24.800	-0.00570	-0.16760	-0.08460	-0.25220	-0.06820	-0.03510	-0.06850	-0.02910	-0.08680	324.90500
2.499	27.840	-0.00770	-0.18970	-0.09410	-0.28210	-0.05530	-0.02495	-0.05490	-0.01770	-0.09940	324.90500
2.499	30.850	-0.00660	-0.20660	-0.09260	-0.30910	-0.02204	-0.00144	-0.00168	-0.00115	-0.00115	324.90500

RUN NO. 411/0 ENL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	CH11	CH12	CH13	CH14	CH15	CH16	CH17	CH18	CH19	CH20	CH21	CH22	CH23	CH24	CH25	CH26	CH27	CH28	CH29	CH30	CH31	CH32	CH33	CH34	CH35	CH36	CH37	CH38	CH39	CH40	CH41	CH42	CH43	CH44	CH45	CH46	CH47	CH48	CH49	CH50	CH51	CH52	CH53	CH54	CH55	CH56	CH57	CH58	CH59	CH60	CH61	CH62	CH63	CH64	CH65	CH66	CH67	CH68	CH69	CH70	CH71	CH72	CH73	CH74	CH75	CH76	CH77	CH78	CH79	CH80	CH81	CH82	CH83	CH84	CH85	CH86	CH87	CH88	CH89	CH90	CH91	CH92	CH93	CH94	CH95	CH96	CH97	CH98	CH99	CH100	CH101	CH102	CH103	CH104	CH105	CH106	CH107	CH108	CH109	CH110	CH111	CH112	CH113	CH114	CH115	CH116	CH117	CH118	CH119	CH120	CH121	CH122	CH123	CH124	CH125	CH126	CH127	CH128	CH129	CH130	CH131	CH132	CH133	CH134	CH135	CH136	CH137	CH138	CH139	CH140	CH141	CH142	CH143	CH144	CH145	CH146	CH147	CH148	CH149	CH150	CH151	CH152	CH153	CH154	CH155	CH156	CH157	CH158	CH159	CH160	CH161	CH162	CH163	CH164	CH165	CH166	CH167	CH168	CH169	CH170	CH171	CH172	CH173	CH174	CH175	CH176	CH177	CH178	CH179	CH180	CH181	CH182	CH183	CH184	CH185	CH186	CH187	CH188	CH189	CH190	CH191	CH192	CH193	CH194	CH195	CH196	CH197	CH198	CH199	CH200	CH201	CH202	CH203	CH204	CH205	CH206	CH207	CH208	CH209	CH210	CH211	CH212	CH213	CH214	CH215	CH216	CH217	CH218	CH219	CH220	CH221	CH222	CH223	CH224	CH225	CH226	CH227	CH228	CH229	CH230	CH231	CH232	CH233	CH234	CH235	CH236	CH237	CH238	CH239	CH240	CH241	CH242	CH243	CH244	CH245	CH246	CH247	CH248	CH249	CH250	CH251	CH252	CH253	CH254	CH255	CH256	CH257	CH258	CH259	CH260	CH261	CH262	CH263	CH264	CH265	CH266	CH267	CH268	CH269	CH270	CH271	CH272	CH273	CH274	CH275	CH276	CH277	CH278	CH279	CH280	CH281	CH282	CH283	CH284	CH285	CH286	CH287	CH288	CH289	CH290	CH291	CH292	CH293	CH294	CH295	CH296	CH297	CH298	CH299	CH300	CH301	CH302	CH303	CH304	CH305	CH306	CH307	CH308	CH309	CH310	CH311	CH312	CH313	CH314	CH315	CH316	CH317	CH318	CH319	CH320	CH321	CH322	CH323	CH324	CH325	CH326	CH327	CH328	CH329	CH330	CH331	CH332	CH333	CH334	CH335	CH336	CH337	CH338	CH339	CH340	CH341	CH342	CH343	CH344	CH345	CH346	CH347	CH348	CH349	CH350	CH351	CH352	CH353	CH354	CH355	CH356	CH357	CH358	CH359	CH360	CH361	CH362	CH363	CH364	CH365	CH366	CH367	CH368	CH369	CH370	CH371	CH372	CH373	CH374	CH375	CH376	CH377	CH378	CH379	CH380	CH381	CH382	CH383	CH384	CH385	CH386	CH387	CH388	CH389	CH390	CH391	CH392	CH393	CH394	CH395	CH396	CH397	CH398	CH399	CH400	CH401	CH402	CH403	CH404	CH405	CH406	CH407	CH408	CH409	CH410	CH411	CH412	CH413	CH414	CH415	CH416	CH417	CH418	CH419	CH420	CH421	CH422	CH423	CH424	CH425	CH426	CH427	CH428	CH429	CH430	CH431	CH432	CH433	CH434	CH435	CH436	CH437	CH438	CH439	CH440	CH441	CH442	CH443	CH444	CH445	CH446	CH447	CH448	CH449	CH450	CH451	CH452	CH453	CH454	CH455	CH456	CH457	CH458	CH459	CH460	CH461	CH462	CH463	CH464	CH465
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TABULATED SOURCE DATA - Q453C

DATE 15 JUL 74

(BEL042) (07 MAR 74)

ARC 87-747 Q453C B C M F M V NOM. RV/L

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 10.000  
 AILRON = 5.000 BDFLAP = -11.760  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 5.000

RUN NO. 412/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CMR	CHEI	CHEO	CHET	CHIL	CHLL	CHUR	CHLR	CHBF	Q
3.498	-8.57	-0.00820	-0.00500	-0.00720	-0.01220	-0.07790	-0.07570	-0.07540	-0.07000	.00090	255.00000
3.498	-3.92	-0.00800	-0.00630	-0.00750	-0.01380	-0.07690	-0.07540	-0.07540	-0.06900	.00280	255.00000
3.498	1.119	-0.00730	-0.01230	-0.01010	-0.02240	-0.07560	-0.07440	-0.07400	-0.06870	.00220	255.00000
3.498	3.137	-0.00290	-0.01970	-0.01390	-0.03350	-0.07240	-0.07510	-0.07390	-0.07080	.01070	255.00000
3.498	5.153	-0.00240	-0.02670	-0.01780	-0.04460	-0.07130	-0.07220	-0.07310	-0.06800	.00250	255.00000
3.498	7.169	-0.00430	-0.03530	-0.02200	-0.05730	-0.07120	-0.06740	-0.07160	-0.06270	.00250	255.00000
3.498	9.202	-0.00490	-0.04370	-0.02700	-0.07070	-0.06910	-0.06350	-0.06930	-0.05840	.00500	255.00000
3.498	12.220	-0.00950	-0.05700	-0.03410	-0.09110	-0.06880	-0.06210	-0.06610	-0.05340	.01010	255.00000
3.498	15.260	-0.00660	-0.07330	-0.04150	-0.11480	-0.06180	-0.05180	-0.06140	-0.04560	.01640	255.00000
3.498	18.310	-0.00710	-0.09090	-0.04970	-0.14060	-0.05610	-0.03610	-0.05490	-0.03020	.03180	255.00000
3.498	21.350	-0.00630	-0.11020	-0.05790	-0.16820	-0.04870	-0.02090	-0.04760	-0.01560	.03780	255.00000
3.498	24.390	-0.00730	-0.13070	-0.06720	-0.19800	-0.03680	-0.01570	-0.03480	-0.01050	.04880	255.00000
3.498	26.920	-0.00700	-0.14920	-0.07600	-0.22520	-0.03080	-0.01350	-0.02820	-0.00900	.06580	255.00000
3.498	GRADIENT	.00131	-0.00373	-0.00172	-0.00542	.00132	.00016	.00042	-0.00026	.00223	.00000

DATE 15 JUL 74

## TABULATED SOURCE DATA - QAS3C

PAGE 229

ARC 87-747 QAS3C B C M F M V NOM. RV/L

GBELOG3) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1504 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 ALLRON = 15.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = -15.000

RUN NO. 413/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-0.572	-0.01280	.12110	.03120	.15230	-0.11850	-0.10490	-0.11460	-0.09610	.00740	324.50000
2.499	-1.08	-0.01170	.11720	.02960	.14880	-0.11790	-0.10420	-0.11470	-0.09570	.00420	324.50000
2.499	1.411	-0.01020	.10400	.02490	.12890	-0.11470	-0.10150	-0.11230	-0.09380	.00720	324.50000
2.499	3.439	-0.00910	.08470	.02010	.10480	-0.11030	-0.09830	-0.10840	-0.09120	-0.00220	324.50000
2.499	5.456	-0.00860	.06470	.01550	.08020	-0.10650	-0.09650	-0.10480	-0.08960	-0.00220	324.50000
2.499	7.492	-0.00830	.0475	.01140	.05880	-0.10190	-0.09340	-0.10050	-0.08640	-0.00840	324.50000
2.499	9.527	-0.00930	.03570	.00710	.04210	-0.09830	-0.09150	-0.09660	-0.08390	-0.01190	324.50000
2.499	12.570	-0.00810	.02570	.00220	.02020	-0.09410	-0.08800	-0.09320	-0.08080	-0.02330	324.50000
2.499	15.630	-0.00930	.00410	.00020	.00160	-0.09130	-0.08490	-0.08950	-0.07740	-0.02530	324.50000
2.499	18.690	-0.01160	-0.01110	-0.01180	-0.02280	-0.08750	-0.07590	-0.08380	-0.07610	-0.04380	324.50000
2.499	21.730	-0.00830	-.02640	-0.01750	-0.04390	-0.07930	-0.03300	-0.07750	-0.06460	-0.06120	324.50000
2.499	24.800	-0.01270	-.04100	-0.02360	-0.06460	-0.07480	-0.03430	-0.06830	-0.02820	-0.07680	324.50000
2.499	27.340	-0.00710	-.05240	-0.02810	-0.08060	-0.05420	-0.02560	-0.05510	-0.01760	-0.09120	324.50000
GRADIENT		.00027	-.00908	-.00276	-.01184	.00208	.00166	.00161	.00124	-.00173	.00000

RUN NO. 414/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-0.612	-0.00730	.08310	.02500	.10810	-0.09870	-0.08890	-0.09710	-0.08320	.00000	291.20000
3.001	-1.04	-0.00700	.07950	.02410	.10350	-0.09790	-0.08800	-0.09680	-0.08210	.00440	291.20000
3.001	1.358	-0.00550	.06940	.01330	.08260	-0.09380	-0.08630	-0.09370	-0.08090	.00140	291.20000
3.001	3.422	-0.00490	.05280	.01710	.06990	-0.09150	-0.08480	-0.09230	-0.07900	.00220	291.20000
3.001	5.399	-0.00850	.03910	.01310	.05220	-0.09100	-0.08320	-0.08980	-0.07590	-0.00170	291.20000
3.001	7.433	-0.00570	.02940	.00880	.03790	-0.08700	-0.07740	-0.08670	-0.07200	-0.00250	291.20000
3.001	9.447	-0.00580	.02050	.00460	.02510	-0.08250	-0.07470	-0.08320	-0.06820	-0.00520	291.20000
3.001	12.510	-0.00760	.00910	.00020	.00930	-0.07990	-0.07350	-0.07920	-0.06660	-0.01540	291.20000
3.001	15.580	-0.00630	-0.00190	-0.00390	-0.00580	-0.07340	-0.06600	-0.07300	-0.06010	-0.02230	291.20000
3.001	18.570	-0.00750	-0.01300	-0.00880	-0.02180	-0.06940	-0.05270	-0.05610	-0.04670	-0.03410	291.20000
3.001	21.640	-0.00710	-.02300	-0.01300	-0.03620	-0.06260	-0.03290	-0.06160	-0.02670	-0.04560	291.20000
3.001	24.730	-0.00550	-0.03230	-0.01770	-0.05000	-0.04960	-0.02200	-0.04930	-0.01680	-0.05720	291.20000
3.001	27.280	-0.00750	-0.04220	-0.02224	-0.06430	-0.04020	-0.01990	-0.03840	-0.01420	-0.06710	291.20000
GRADIENT		.00062	-.00750	-.00224	-.00973	.00185	.00099	.00126	.00098	.00009	.00000

DATE 15 JUL 74

TABULATED SOURCE DATA - 0433C

PAGE 235

ARC 87-147 0433C B C W F M V HOM. RN/L

(08L043) (07 MAR 74)

REFERENCE DATA

SREF = 2.4210 50.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 ALLRON = 15.000 BDFIAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = -15.000

RUN NO. 415/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.498	-0.862	-0.00890	.06000	.02230	.08220	-0.07740	-0.07330	-0.07480	-0.06900	-0.00330	255.80000
3.498	-1.374	-0.00620	.04800	.02150	.07950	-0.07570	-0.07430	-0.07430	-0.06690	.00690	255.80000
3.498	1.150	-0.00760	.04980	.01890	.06870	-0.07460	-0.07480	-0.07370	-0.06810	.00360	255.80000
3.498	3.136	-0.00370	.03660	.01430	.05090	-0.07180	-0.07490	-0.07290	-0.07010	.00000	255.80000
3.498	5.150	-0.00320	.02690	.01020	.03710	-0.07140	-0.07200	-0.07210	-0.06600	.00130	255.80000
3.498	7.191	-0.00440	.01700	.00670	.02370	-0.07030	-0.06760	-0.07080	-0.06270	.00030	255.80000
3.498	9.158	-0.00310	.01140	.00420	.01560	-0.06760	-0.06330	-0.06890	-0.05880	-0.00090	255.80000
3.498	12.180	-0.00790	.00510	.00070	.00580	-0.06530	-0.06070	-0.06500	-0.05310	-0.00190	255.80000
3.498	15.250	-0.00720	-0.00410	-0.00280	-0.00690	-0.06120	-0.05240	-0.06100	-0.04530	-0.01540	255.80000
3.498	18.310	-0.00870	-0.01210	-0.00630	-0.01840	-0.05630	-0.03620	-0.05480	-0.02890	-0.02220	255.80000
3.498	21.340	-0.00660	-0.01870	-0.00970	-0.02830	-0.04770	-0.02120	-0.04680	-0.01540	-0.02540	255.80000
3.498	24.370	-0.00750	-0.02680	-0.01360	-0.04040	-0.03640	-0.01650	-0.03420	-0.01080	-0.04430	255.80000
3.498	26.970	-0.00800	-0.03370	-0.01750	-0.05100	-0.03050	-0.01420	-0.02800	-0.00370	-0.05870	255.80000
3.498	GRADIENT	.00102	-0.00591	-0.00220	-0.00789	.00128	.00000	.00092	-0.00025	-0.00148	.00000

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C M F M V NOM. RV/L

(BELG44) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 PREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA =  
 ALCON =  
 SPBRK =  
 ELEV-L =  
 ELEV-R =

.000 ELEVON = -10.000  
 15.000 BDFLAP = -11.760  
 55.000 RUDDER = .200  
 5.000 ELEV-R = -25.000

## PARAMETRIC DATA

RUN NO. 526/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-1.507	.00210	.17020	.03760	.22780	-.11950	-.09920	-.11620	-.10040	.00500	320.30000
2.499	.183	-.00020	.16220	.03420	.21640	-.11700	-.09890	-.11610	-.09970	.00380	320.30000
2.499	1.202	.00120	.13200	.04780	.19980	-.11450	-.09700	-.11410	-.09860	.00480	320.30000
2.499	3.234	.00160	.13150	.04490	.17630	-.11090	-.09380	-.11000	-.09630	.00080	320.30000
2.499	5.254	.00280	.10360	.03990	.14340	-.10670	-.09100	-.10680	-.09380	-.00450	320.30000
2.499	7.289	.00190	.07990	.03560	.11560	-.10210	-.08970	-.10240	-.09130	-.00930	320.30000
2.499	9.311	.00330	.07470	.03120	.10590	-.09750	-.08680	-.10930	-.08900	-.01100	320.30000
2.499	12.360	.00190	.06040	.02190	.08230	-.09490	-.08300	-.09420	-.08560	-.01810	320.30000
2.499	15.420	.00090	.04360	.01500	.05860	-.09200	-.08070	-.09120	-.08250	-.03260	320.30000
2.499	18.465	.00070	.02550	.00930	.03490	-.08730	-.07400	-.08770	-.07430	-.04420	320.30000
2.499	21.520	.00160	.00560	.00420	.00980	-.08040	-.05260	-.08060	-.05400	-.06000	320.30000
2.499	24.580	.00440	-.00510	-.00180	-.00690	-.06830	-.03270	-.07010	-.03530	-.07530	320.30000
2.499	27.450	.00140	-.01490	-.00650	-.02130	-.05480	-.02200	-.05620	-.02220	-.09060	320.30000
2.499	GRADIENT	.00090	-.01027	-.00337	-.01366	.00223	.00151	.00175	.00110	-.00148	.00000

RUN NO. 527/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-.560	.00260	.12620	.05230	.17650	-.09840	-.08420	-.09760	-.08730	.00080	287.80000
3.001	.142	.00350	.11930	.05030	.16950	-.09680	-.08400	-.09760	-.08620	.00000	287.80000
3.001	1.162	.00230	.10910	.04740	.15640	-.09440	-.08300	-.09310	-.08450	-.00060	287.80000
3.001	3.180	.00300	.09300	.04200	.13510	-.09250	-.08000	-.09190	-.08350	-.00080	287.80000
3.001	5.205	.00380	.07580	.03790	.11370	-.09020	-.07820	-.09120	-.08190	-.00530	287.80000
3.001	7.218	.00380	.06140	.03190	.09340	-.08740	-.07440	-.08830	-.07723	-.00670	287.80000
3.001	9.252	.00340	.05250	.02600	.07860	-.08360	-.07120	-.08480	-.07340	-.00780	287.80000
3.001	12.280	.00470	.03960	.02050	.05960	-.07940	-.06830	-.08060	-.07180	-.01560	287.80000
3.001	15.330	.00280	.02700	.01590	.04210	-.07390	-.06390	-.07500	-.06550	-.02450	287.80000
3.001	18.380	.00330	.01030	.01090	.02130	-.06890	-.05140	-.06970	-.05390	-.03490	287.80000
3.001	21.420	.00290	.00250	.00690	.00940	-.06280	-.03210	-.06330	-.03460	-.04600	287.80000
3.001	24.470	.00200	-.00380	.00260	-.00130	-.05180	-.02060	-.05180	-.02260	-.05360	287.80000
3.001	27.330	.00080	-.01100	-.00160	-.01260	-.03910	-.01800	-.03910	-.01890	-.07310	287.80000
3.001	GRADIENT	.00006	-.00862	-.00274	-.01152	.00155	.00116	.00163	.00104	-.00039	.00000

ARC 87-747 Q453C B C H F W V NOM. RN/L

(BELG44) ( 97 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT.      XREF = 32.3010 IN.  
LREF = 14.2440 IN.      YREF = .0500 IN.  
BREF = 20.1054 IN.      ZREF = 11.2550 IN.  
SCALE = .0500 SCALE

## PARAMETRIC DATA

BETA	=	.000	ELEVON	=	-10.000
AILRON	=	15.000	BDCLAP	=	-11.750
SFDBRK	=	55.000	RUDDER	=	.000
ELEV-L	=	5.000	ELEV-R	=	-25.000

RUN NO. 328 / 5 RM/L = 1.75 GRADIENT INTERVAL = -5.55/ 5.55

MACH	ALPHA	CHR	CMEI	CHEO	CNET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	- .795	-.00040	.10020	.04800	.14810	-.07850	-.07330	-.07620	-.07510	-.00190	252.50000
3.496	-.098	.00110	.00240	.04720	.13960	-.07790	-.07220	-.07630	-.07490	-.00130	252.50000
3.496	-.903	.00610	.08610	.04430	.13040	-.07730	-.07070	-.07610	-.07370	-.00220	252.50000
3.496	2.926	.00550	.06970	.03820	.10790	-.07350	-.07110	-.07430	-.07580	.00000	252.50000
3.496	4.947	.00730	.05610	.03210	.06810	-.07300	-.06890	-.07430	-.07480	-.00380	252.50000
3.496	6.960	.00900	.04110	.02740	.06850	-.07140	-.06470	-.07350	-.07060	-.00330	252.50000
3.496	8.987	.00700	.03640	.02400	.05980	-.06950	-.06110	-.07100	-.06650	-.00280	252.50000
3.496	12.020	.00300	.02540	.01900	.04440	-.06630	-.05900	-.06790	-.06130	-.01620	252.50000
3.496	15.090	.00400	.01390	.01500	.02890	-.06180	-.05030	-.06310	-.05300	-.02200	252.50000
3.496	18.090	.00550	.00570	.01680	.01680	-.05620	-.03310	-.05740	-.03950	-.02580	252.50000
3.496	21.120	.00420	.00220	.00800	.01020	-.04840	-.02160	-.05040	-.03350	-.03630	252.50000
3.496	24.170	.00220	-.00310	.00440	.00130	-.03710	-.01610	-.03760	-.01780	-.04810	252.50000
3.496	27.060	.00140	-.00860	.00010	-.00850	-.03010	-.01330	-.02950	-.01530	-.07640	252.50000
3.496	GRADIENT	.00133	-.00758	-.00285	-.01044	.00103	.00064	.00041	-.00005	-.00034	-.00000

ARC 87-747 QAS3C B C M F M V NOM. RN/L

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

BETA = .000 ELEVON = -20.000  
 AIRLON = 5.000 BDFLAP = -11.700  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = -15.000 ELEV-R = -25.000

PARAMETRIC DATA

RUN NO. 500/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-.570	.00480	.17160	.05690	.22850	-.11750	-.09900	-.11900	-.09900	-.10230	-.10230	.01150	315.00000
2.498	.122	.00650	.16300	.05420	.21720	-.11570	-.09810	-.11900	-.09810	-.10140	-.10140	.01220	315.00000
2.498	1.141	.00790	.15240	.04910	.20150	-.11380	-.09630	-.11760	-.09630	-.10050	-.10050	.00820	315.00000
2.498	3.163	.00910	.13150	.04490	.17640	-.10940	-.09390	-.11370	-.09390	-.09870	-.09870	.00870	315.00000
2.498	5.185	.00960	.10550	.03970	.14520	-.10520	-.09180	-.11050	-.09180	-.09620	-.09620	.00610	315.00000
2.498	7.217	.00970	.07890	.03530	.11420	-.10110	-.08960	-.10600	-.08960	-.09450	-.09450	.00000	315.00000
2.498	9.245	.00880	.07330	.03150	.10480	-.09730	-.08790	-.10190	-.08790	-.09110	-.09110	-.00030	315.00000
2.498	12.300	.00760	.06080	.02230	.08310	-.09280	-.08350	-.09600	-.08350	-.08780	-.08780	-.01040	315.00000
2.498	15.350	.01030	.04450	.01540	.06000	-.09100	-.07960	-.09550	-.07960	-.08350	-.08350	-.02090	315.00000
2.498	18.400	.00840	.02650	.00980	.03630	-.08710	-.07270	-.09110	-.07270	-.07720	-.07720	-.03470	315.00000
2.498	21.450	.00930	.00630	.00460	.01090	-.08020	-.05140	-.08470	-.05140	-.05630	-.05630	-.05000	315.00000
2.498	24.510	.00890	-.00460	-.00100	-.00560	-.07020	-.03390	-.07500	-.03390	-.03800	-.03800	-.06530	315.00000
2.498	27.380	.00850	-.01400	-.00670	-.02060	-.05330	-.02090	-.05890	-.02090	-.02390	-.02390	-.07700	315.00000
GRADIENT		.00108	-.01064	-.00322	-.01385	.00214	.00138	.00150	.00138	.00094	.00094	-.00092	.00000

RUN NO. 501/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.000	-.612	.00930	.12550	.05230	.17780	-.09780	-.08430	-.09030	-.10110	-.09030	.00540	.284.20000	
3.000	.080	.01180	.11700	.04970	.16670	-.09620	-.08270	-.08940	-.10120	-.08940	.00570	.284.20000	
3.000	1.095	.01160	.10730	.04800	.15530	-.09390	-.08220	-.08850	-.09930	-.08850	.00340	.284.20000	
3.000	3.111	.01300	.09340	.04290	.13630	-.09190	-.08060	-.08770	-.09770	-.08770	.00590	.284.20000	
3.000	5.132	.01240	.07710	.03790	.11510	-.09000	-.07760	-.08400	-.09600	-.08400	.00030	.284.20000	
3.000	7.157	.01380	.06070	.03270	.09340	-.08690	-.07460	-.08110	-.09320	-.08110	.00000	.284.20000	
3.000	9.178	.01260	.05230	.02680	.07910	-.08230	-.07160	-.07750	-.08900	-.07750	-.00140	.284.20000	
3.000	12.220	.01210	.04020	.02060	.06070	-.07880	-.06920	-.07480	-.08530	-.07480	-.01160	.284.20000	
3.000	15.260	.01140	.02760	.01570	.04330	-.07340	-.06410	-.06930	-.07970	-.06930	-.01950	.284.20000	
3.000	18.310	.01160	.01120	.01160	.02280	-.06790	-.05210	-.05710	-.07460	-.05710	-.02630	.284.20000	
3.000	21.350	.01130	.00390	.00760	.01150	-.06210	-.03290	-.03870	-.06750	-.03870	-.03790	.284.20000	
3.000	24.400	-.03780	-.00270	.00310	.00040	-.02260	-.02260	-.02670	-.05650	-.02670	-.05240	.284.20000	
3.000	27.270	.00890	-.01010	-.00120	-.01120	-.03850	-.01080	-.04320	-.05890	-.04320	-.06540	.284.20000	
GRADIENT		.00081	-.00843	-.00243	-.01086	.00156	.00091	.00067	.00100	.00067	.00006	.00000	



TABULATED SOURCE DATA - 0453C

DATE 15 JUL 74

(BELG45) ( 07 MAR 74 )

ARC 87-747 0453C B C W F M V NOM. RV/L

PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AILERON = 5.000 BDELAP = -11.700  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = -15.000 ELEV-R = -25.000

REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0000 SCALE

RUN NO. 502/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-1.878	.00890	.14320	-.07800	-.07300	-.08180	-.07810	.00160	248.10000
3.496	-1.165	.01210	.14200	-.07630	-.07200	-.08200	-.07840	.00420	248.10000
3.496	.845	.01290	.12990	-.07580	-.07090	-.08140	-.07810	.00360	248.10000
3.496	2.861	.01550	.10710	-.07260	-.07110	-.08000	-.07910	.00290	248.10000
3.496	4.875	.01680	.08960	-.07150	-.06970	-.07990	-.07810	.00450	248.10000
3.496	6.896	.01800	.07000	-.07030	-.06440	-.07890	-.07380	.00000	248.10000
3.496	8.918	.01560	.06120	-.06890	-.06190	-.07600	-.07040	-.00420	248.10000
3.496	11.950	.01460	.04750	-.06470	-.05950	-.07350	-.06530	-.00900	248.10000
3.496	14.980	.01230	.03120	-.06180	-.05060	-.06790	-.05670	-.01260	248.10000
3.496	18.020	.01350	.01900	-.05450	-.03530	-.06050	-.04290	-.02060	248.10000
3.496	21.060	.01180	.01150	-.04860	-.02310	-.05530	-.02820	-.04030	248.10000
3.496	24.100	.01290	.00490	-.03650	-.01710	-.04350	-.02290	-.04250	248.10000
3.496	26.940	.01320	-.00680	-.02920	-.01330	-.03530	-.02040	-.07200	248.10000
3.496	GRADIENT	.00125	-.00276	.00113	.00043	.00040	-.00004	.00026	.00000

DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

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ARC 87-747 0453C B C H F M V NOM. RN/L

08E046) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2550 IN.  
 SCALE = .0300 SCALE

ALPHA = .000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 85.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 431/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WCH	BETA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-4.645	.00800	.01800	-.00650	.01150	-.15890	-.15720	-.15370	-.17040	.00100	320.60000
2.498	-2.672	.00750	.01900	-.00580	.01350	-.15140	-.14290	-.18750	-.18430	.00130	320.60000
2.498	.297	.13420	.02170	-.00380	.01790	-.13920	-.12580	-.20030	-.19890	.00280	320.60000
2.498	3.374	.18740	.02460	-.00270	.02260	-.12820	-.11360	-.20880	-.22050	.00630	320.60000
2.498	5.430	.23010	.02820	-.00150	.02680	-.10420	-.10590	-.20950	-.23670	.00200	320.60000
2.498	7.121	.29220	.03170	-.00120	.03050	-.07640	-.09410	-.21140	-.25130	.00200	320.60000
	GRADIENT	.02167	.00084	.00058	.00141	.00386	.00542	-.00632	-.00609	-.00004	-.00000

RUN NO. 434/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

WCH	BETA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-4.629	-.02060	.00750	-.00570	.00160	-.14770	-.13940	-.11950	-.14650	.00550	290.80000
3.001	-2.617	.04300	.00860	-.00450	.00410	-.13920	-.12360	-.14300	-.16280	.00330	290.80000
3.001	.404	.12920	.01180	-.00290	.00900	-.11900	-.10670	-.17500	-.17980	.00580	290.80000
3.001	3.521	.22710	.01560	-.00160	.01400	-.08750	-.09500	-.20550	-.20420	.00720	290.80000
3.001	5.604	.27990	.01880	-.00110	.01770	-.06930	-.08180	-.21470	-.21630	.00080	290.80000
3.001	7.169	.31580	.02170	-.00070	.01500	-.06300	-.06840	-.21680	-.23050	.00140	290.80000
	GRADIENT	.03018	.00103	.00050	.00154	.00741	.00529	-.01052	-.00696	.00086	-.00000

RUN NO. 437/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

WCH	BETA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.834	-.04440	.00170	-.00520	-.00350	-.14250	-.12740	-.10370	-.12180	.00160	233.00000
3.496	-2.760	.01870	.00310	-.00370	-.00060	-.12680	-.11450	-.12010	-.13990	.00350	233.00000
3.496	.355	.12320	.00740	-.00230	.00510	-.09630	-.09430	-.15210	-.16170	.01080	233.00000
3.496	3.571	.23710	.01050	-.00120	.00930	-.07670	-.07670	-.18750	-.19230	.01900	233.00000
3.496	5.714	.30040	.01320	-.00120	.01200	-.05630	-.06190	-.21210	-.20650	.00160	233.00000
3.496	7.453	.34990	.01610	-.00070	.01540	-.05180	-.04680	-.22750	-.22100	.00600	233.00000
	GRADIENT	.03359	.00109	.00047	.00156	.00921	.00607	-.01006	-.00824	.00213	-.00000

ARC 87-747 Q453C B C M F W V NOM. RN/L

(BELC47) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 85.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 432/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-4.738	.00040	-.04160	-.02910	-.07080	-.14200	-.14610	-.14250	-.14610	-.01810	320.20000
2.498	-2.724	.04450	-.04360	-.02940	-.07300	-.13560	-.13480	-.15890	-.15600	-.01630	320.20000
2.498	.299	.11720	-.04420	-.02900	-.07320	-.11590	-.11180	-.16710	-.17780	-.01580	320.20000
2.498	3.328	.19920	-.04090	-.02860	-.06950	-.10310	-.09080	-.18110	-.21200	-.01630	320.20000
2.498	5.344	.24000	-.03820	-.02840	-.06660	-.09210	-.08200	-.18760	-.22640	-.01680	320.20000
2.498	7.353	.28110	-.03510	-.02840	-.06350	-.06990	-.08080	-.19320	-.23670	-.01400	320.20000
2.498	9.375	.33250	-.03180	-.02850	-.06030	-.04610	-.04980	-.19500	-.23300	-.01830	320.20000
GRADIENT		.02466	.00003	.00007	.00017	.00504	.00697	-.00448	-.00816	.00020	-.00000

RUN NO. 435/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-4.720	-.01920	-.03560	-.02320	-.05880	-.12800	-.12990	-.11010	-.12860	-.01070	291.80000
3.001	-2.676	.03780	-.03670	-.02300	-.05970	-.11820	-.11650	-.13370	-.13870	-.00580	291.80000
3.001	.394	.12490	-.03480	-.02290	-.05770	-.10160	-.09250	-.15730	-.16170	-.00510	291.80000
3.001	3.463	.21760	-.03210	-.02290	-.05500	-.08070	-.07650	-.17770	-.19710	-.00250	291.80000
3.001	5.511	.25890	-.02980	-.02320	-.05300	-.06210	-.07100	-.18240	-.20970	-.01380	291.80000
3.001	7.562	.30670	-.02790	-.02320	-.05110	-.04750	-.03230	-.18370	-.20880	-.01300	291.80000
3.001	9.607	.34490	-.02610	-.02370	-.04980	-.02800	-.01740	-.18150	-.20880	-.01240	291.80000
GRADIENT		.02891	.00047	.00003	.00051	.00577	.00665	-.00811	-.00837	.00075	.00000

RUN NO. 438/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.917	-.04710	-.02990	-.01840	-.04830	-.11600	-.11260	-.08010	-.10150	-.00660	254.70000
3.496	-2.809	.01590	-.02980	-.01880	-.04850	-.11130	-.10870	-.11410	-.12120	-.00350	254.70000
3.496	.352	.12790	-.02910	-.01920	-.04830	-.08730	-.08100	-.14690	-.15010	-.00570	254.70000
3.496	3.519	.22820	-.02770	-.01950	-.04730	-.06010	-.06220	-.16750	-.18300	-.00540	254.70000
3.496	5.634	.28380	-.02630	-.02030	-.04660	-.04350	-.04140	-.18070	-.18710	-.00500	254.70000
3.496	7.739	.31000	-.02470	-.02050	-.04520	-.02720	-.01700	-.17530	-.17890	-.00280	254.70000
3.496	9.852	.32660	-.02270	-.02090	-.04360	-.01900	-.00700	-.17120	-.18150	-.00190	254.70000
GRADIENT		.03299	.00026	-.00013	.00012	.00684	.00637	-.01018	-.00359	.00032	.00000

ARC 87-747 0453C B C M F W V NOM. RN/L

(06L048) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .5000 IN.  
 BREF = 28.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA = 20.000 ELEVON = .000  
 AILRON = .000 BOFLAP = -11.700  
 SPOBRK = 85.000 RUDDER = -10.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 433/ 0 RN/L = 1.72 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-4.737	.08550	-.09680	-.05250	-.14930	-.10160	-.03410	-.08550	-.13570	-.05870	320.20000
2.498	-2.733	.14810	-.10030	-.05310	-.15340	-.11030	-.04430	-.14190	-.16090	-.05320	320.20000
2.498	.284	.10880	-.10210	-.05450	-.15660	-.10160	-.07760	-.15290	-.13500	-.05640	320.20000
2.498	3.3	.04900	-.10260	-.05600	-.15860	-.09140	-.08800	-.15830	-.07010	-.05020	320.20000
2.498	5	.05700	-.10250	-.05670	-.15910	-.06360	-.07970	-.14000	-.06040	-.05270	320.20000
2.498	7.374	.10350	-.10170	-.05670	-.15840	-.03780	-.05200	-.12570	-.06770	-.05790	320.20000
2.498	9.390	.15450	-.09940	-.05700	-.15630	-.02640	-.03220	-.11700	-.09600	-.05540	320.20000
GRADIENT		-.05638	-.05068	-.05044	-.05112	.05158	-.00717	-.00796	.00876	.00079	-.00000

RUN NO. 436/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-4.711	.01040	-.08150	-.04460	-.12610	-.08720	-.03580	-.04910	-.08430	-.04690	291.30000
3.001	-2.674	.11990	-.08350	-.04560	-.12910	-.09130	-.02700	-.10760	-.13070	-.04360	291.30000
3.001	.376	.09000	-.08460	-.04700	-.13160	-.08380	-.05100	-.13450	-.09030	-.04470	291.30000
3.001	3.465	.04790	-.03560	-.04670	-.13230	-.06740	-.06920	-.13490	-.04960	-.03750	291.30000
3.001	5.518	.07830	-.08550	-.04760	-.13310	-.03940	-.05010	-.11220	-.05550	-.03890	291.30000
3.001	7.572	.13020	-.08570	-.04860	-.13430	-.02430	-.03000	-.10450	-.07990	-.04740	291.30000
3.001	9.633	.16130	-.08580	-.04980	-.13560	-.01420	-.01960	-.10110	-.09410	-.04690	291.30000
GRADIENT		.00177	-.00047	-.00027	-.00074	.00255	-.00470	-.00982	.00590	.00098	-.00000

RUN NO. 439/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.916	-.02390	-.06820	-.03810	-.10630	-.07380	-.03890	-.03230	-.05650	-.03530	254.70000
3.496	-2.816	.06870	-.07030	-.03860	-.10890	-.07490	-.02670	-.07200	-.09830	-.03590	254.70000
3.496	.334	.07040	-.07220	-.03910	-.11130	-.07060	-.03410	-.11630	-.05880	-.03180	254.70000
3.496	3.508	.05370	-.07290	-.04100	-.11390	-.04790	-.05040	-.11090	-.04100	-.03560	254.70000
3.496	5.630	.10450	-.07380	-.04250	-.11620	-.02570	-.02830	-.09600	-.06250	-.03220	254.70000
3.496	7.750	.12500	-.07370	-.04340	-.11710	-.01680	-.01690	-.08790	-.07070	-.03180	254.70000
3.496	9.868	.14740	-.07240	-.04480	-.11720	-.00970	-.00990	-.08800	-.07900	-.02180	254.70000
GRADIENT		.00737	-.00055	-.00033	-.00080	.00300	-.00166	-.00954	.00352	.00011	-.00000

ARC 87-747 Q453C B C M F W V NOM. RNVL SEAL. EL

QBEL049) ( 07 MAR 74 )

## REFERENCE DATA

SEEF = 2.4210 SQ-FT. ZMEP = 32.3010 IN.  
 LREF = 14.2440 IN. YMEP = .0000 IN.  
 BREP = 28.1004 IN. ZMEP = 11.2500 IN.  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = 15.000  
 AIRLON = .000 BDFLAP = 16.300  
 SPOBRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

RUN NO. 520/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-0.534	-0.00390	-0.06360	-0.03300	-0.09670	-0.11950	-0.09820	-0.11520	-0.09970	-0.12410	319.90000
2.498	-0.104	-0.00130	-0.06780	-0.03920	-0.10300	-0.11670	-0.09830	-0.11490	-0.09890	-0.13000	319.90000
2.498	1.200	-0.00220	-0.07480	-0.03920	-0.11400	-0.11430	-0.09770	-0.11250	-0.09730	-0.13710	319.90000
2.498	3.224	-0.00120	-0.08840	-0.04600	-0.13430	-0.10980	-0.09310	-0.10940	-0.09470	-0.14890	319.90000
2.498	5.256	-0.00080	-0.10240	-0.05330	-0.15570	-0.10660	-0.09140	-0.10570	-0.09310	-0.15660	319.90000
2.498	7.277	-0.00270	-0.11800	-0.06080	-0.17880	-0.10100	-0.08880	-0.10180	-0.09070	-0.18180	319.90000
2.498	9.307	-0.00070	-0.13190	-0.06820	-0.20020	-0.09770	-0.08640	-0.09730	-0.08750	-0.20220	319.90000
2.498	12.350	-0.00100	-0.15410	-0.07990	-0.23400	-0.09380	-0.08270	-0.09330	-0.08400	-0.23490	319.90000
2.498	15.400	-0.00050	-0.17830	-0.09180	-0.27010	-0.09100	-0.07990	-0.09000	-0.08150	-0.27400	319.90000
2.498	18.460	-0.00090	-0.20520	-0.10480	-0.30710	-0.08710	-0.07230	-0.08630	-0.07210	-0.32060	319.90000
2.498	21.520	-0.00030	-0.23380	-0.11880	-0.35260	-0.07990	-0.05130	-0.07940	-0.05200	-0.36650	319.90000
2.498	24.570	-0.00330	-0.26400	-0.13290	-0.39690	-0.06840	-0.03210	-0.06980	-0.03400	-0.41380	319.90000
2.498	27.450	-0.00090	-0.29120	-0.14580	-0.43760	-0.05230	-0.02050	-0.05370	-0.02010	-0.45520	319.90000
GRADIENT		-0.00117	-0.00665	-0.00349	-0.01010	-0.00250	-0.00162	-0.00163	-0.00135	-0.00651	319.90000

RUN NO. 521/ 0 RNVL = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHEI	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-0.577	-0.00010	-0.04600	-0.02430	-0.07030	-0.09850	-0.08470	-0.09730	-0.08600	-0.13400	286.50000
3.001	-0.142	-0.00180	-0.04940	-0.02620	-0.07560	-0.09660	-0.08340	-0.09660	-0.08520	-0.09750	286.50000
3.001	1.130	-0.00190	-0.05490	-0.02920	-0.08410	-0.09440	-0.08170	-0.09400	-0.08410	-0.09850	286.50000
3.001	3.170	-0.00290	-0.06730	-0.03520	-0.10250	-0.09160	-0.08080	-0.09220	-0.08220	-0.11310	286.50000
3.001	5.199	-0.00350	-0.08010	-0.04220	-0.08910	-0.07710	-0.07710	-0.09020	-0.07940	-0.12210	286.50000
3.001	7.221	-0.00270	-0.09340	-0.04930	-0.14270	-0.08660	-0.07330	-0.07710	-0.07350	-0.13940	286.50000
3.001	9.243	-0.00250	-0.10670	-0.05690	-0.16350	-0.08280	-0.07050	-0.07040	-0.07250	-0.15910	286.50000
3.001	12.280	-0.00210	-0.12940	-0.06870	-0.19800	-0.07860	-0.06830	-0.07020	-0.06930	-0.19450	286.50000
3.001	15.330	-0.00260	-0.15570	-0.08180	-0.23750	-0.07260	-0.06320	-0.07370	-0.06470	-0.23610	286.50000
3.001	18.370	-0.00180	-0.18320	-0.09630	-0.27940	-0.06810	-0.05060	-0.06640	-0.05210	-0.26200	286.50000
3.001	21.410	-0.00260	-0.21210	-0.10990	-0.32200	-0.06130	-0.03050	-0.06250	-0.03290	-0.32400	286.50000
3.001	24.470	-0.00300	-0.24310	-0.12430	-0.36740	-0.04920	-0.01990	-0.05040	-0.02170	-0.37410	286.50000
3.001	27.370	-0.00090	-0.27160	-0.13660	-0.40820	-0.03800	-0.01590	-0.03710	-0.01730	-0.41990	286.50000
GRADIENT		-0.00039	-0.00374	-0.00293	-0.00866	-0.00180	-0.00101	-0.00141	-0.00111	-0.00496	286.50000

TABULATED SOURCE DATA - QAS3C

DATE 15 JUL 74

(07 MAR 74)

ARC 87-747 QAS3C B C M F W V NOM. RNVL SEAL.EL

REFERENCE DATA

SCRF = 2.4210 SQ.FT. DRIP = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 28.1504 IN. ZREF = 11.2500 IN.  
 SCALE = .0000 SCALE

BETA = .000 ELEVON = 15.000  
 ALLORN = .000 BIDFLAP = 16.300  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = 15.000 ELEV-R = 15.000

PARAMETRIC DATA

RUN NO. 522/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHP	CHET	CHCO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-1.797	-0.0060	-0.0510	-0.0190	-0.0540	-0.0760	-0.0720	-0.0750	-0.0740	-0.0730	252.00000
3.496	-1.107	-0.0100	-0.0380	-0.0200	-0.0590	-0.0760	-0.0700	-0.0750	-0.0720	-0.0760	252.00000
3.496	.911	-0.0310	-0.0430	-0.0230	-0.0670	-0.0730	-0.0710	-0.0730	-0.0740	-0.0740	252.00000
3.496	2.918	-0.0390	-0.0540	-0.0290	-0.0840	-0.0730	-0.0710	-0.0730	-0.0720	-0.0820	252.00000
3.496	4.940	-0.0370	-0.0600	-0.0350	-0.1010	-0.0710	-0.0680	-0.0710	-0.0720	-0.0980	252.00000
3.496	6.961	-0.0670	-0.0780	-0.0420	-0.1210	-0.0700	-0.0630	-0.0710	-0.0680	-0.1150	252.00000
3.496	8.994	-0.0490	-0.0920	-0.0500	-0.1430	-0.0680	-0.0610	-0.0690	-0.0650	-0.1340	252.00000
3.496	12.010	-0.0300	-0.1140	-0.0230	-0.1760	-0.0640	-0.0590	-0.0660	-0.0600	-0.1700	252.00000
3.496	15.050	-0.0130	-0.1400	-0.0740	-0.2130	-0.0610	-0.0490	-0.0610	-0.0560	-0.2080	252.00000
3.496	18.090	-0.0450	-0.1690	-0.0700	-0.2560	-0.0560	-0.0360	-0.0550	-0.0380	-0.2510	252.00000
3.496	21.120	-0.0190	-0.1980	-0.0500	-0.2980	-0.0480	-0.0260	-0.0480	-0.0220	-0.2960	252.00000
3.496	24.160	-0.0180	-0.2280	-0.1400	-0.3420	-0.0350	-0.0150	-0.0350	-0.0160	-0.3380	252.00000
3.496	27.060	-0.0230	-0.2570	-0.1270	-0.3850	-0.0280	-0.0120	-0.0280	-0.0140	-0.3950	252.00000
3.496	GRADIENT	-0.0100	-0.0530	-0.0280	-0.0820	-0.0100	-0.0040	-0.0047	-0.0006	-0.0049	-0.00000

ARC 87-747 QASXC B C N F M V NOM. RNVL SEAL.EL

080500) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SA.FT. 196P = 32.3010 IN.  
 LREF = 14.2440 IN. 196P = .0000 IN.  
 BREF = 28.1004 IN. 296P = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 AIRCON = .000 BCFAP = 16.300  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 517/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	QMR	QMEI	QCEO	QMET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-1.506	.00430	.02500	.00000	.02500	-1.11940	-1.00070	-1.11630	-.09960	-.11180	318.20000
2.498	.186	.00300	.02070	-.00190	.01880	-1.11720	-1.00330	-1.11540	-.09920	-.11750	318.20000
2.498	1.202	.00220	.01370	-.00460	.00910	-1.11520	-.09900	-1.11360	-.09840	-.12270	318.20000
2.498	3.232	.00220	.00030	.00960	.00990	-1.11110	-.09460	-1.10960	-.09580	-.13550	318.20000
2.498	5.256	.00120	-.01570	-.01420	-.02990	-1.10650	-.09240	-1.10650	-.09360	-.15450	318.20000
2.498	7.264	.00030	-.02860	-.01920	-.04770	-1.10100	-.09120	-1.10210	-.09130	-.16940	318.20000
2.498	9.312	.00000	-.03960	-.02410	-.06370	-.09820	-.08790	-.09820	-.08780	-.18760	318.20000
2.498	12.360	.00020	-.05500	-.03150	-.08640	-.09440	-.08390	-.09440	-.08460	-.22430	318.20000
2.498	15.410	.00010	-.07210	-.03890	-.11100	-.09110	-.08120	-.09080	-.08140	-.25680	318.20000
2.498	18.460	.00020	-.08920	-.04640	-.13560	-.08820	-.07430	-.08750	-.07350	-.30560	318.20000
2.498	21.510	.00100	-.10910	-.05460	-.16370	-.08040	-.05350	-.08000	-.05300	-.34800	318.20000
2.498	24.560	.00020	-.12940	-.06320	-.19260	-.07130	-.03470	-.07120	-.03510	-.39620	318.20000
2.498	27.450	.00070	-.14880	-.07140	-.22030	-.05360	-.02270	-.05480	-.02100	-.43650	318.20000
GRADIENT		.00104	-.00680	-.00256	-.00936	.00216	.00169	.00182	.00104	-.00620	.00000

RUN NO. 518/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	QMR	QMEI	QCEO	QMET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.000	-1.579	.00080	.01520	.00070	.01600	-.09750	-.08480	-.09570	-.08590	-.07860	287.30000
3.000	.142	.00010	.01220	-.00030	.01190	-.09650	-.08390	-.09570	-.08480	-.08120	287.30000
3.000	1.152	.00020	.00620	-.00200	.00420	-.09430	-.08370	-.09390	-.08390	-.08710	287.30000
3.000	3.180	.00140	-.00400	-.00540	.00930	-.09190	-.08170	-.09220	-.08270	-.09830	287.30000
3.000	5.194	.00100	-.01350	-.00970	.02320	-.09030	-.07920	-.09000	-.08030	-.11560	287.30000
3.000	7.232	.00240	-.02270	-.01410	.03680	-.08620	-.07510	-.08720	-.07660	-.13020	287.30000
3.000	9.252	.00090	-.03130	-.01940	.04970	-.08340	-.07240	-.08370	-.07300	-.15450	287.30000
3.000	12.280	.00220	-.04330	-.02470	.06800	-.07810	-.06950	-.07960	-.07030	-.18870	287.30000
3.000	15.320	.00080	-.05790	-.03190	.08970	-.07310	-.06470	-.07390	-.06500	-.22410	287.30000
3.000	18.360	.00010	-.07390	-.03930	.11320	-.06860	-.05280	-.06840	-.05310	-.26340	287.30000
3.000	21.420	.00100	-.09030	-.04670	.13700	-.06350	-.03290	-.06290	-.03490	-.31140	287.30000
3.000	24.460	.00020	-.10920	-.05470	.16270	-.05190	-.02160	-.05030	-.02270	-.35960	287.30000
3.000	27.530	.00180	-.12720	-.06240	.18960	-.03870	-.01730	-.03650	-.01790	-.40350	287.30000
GRADIENT		.00049	-.00516	-.00164	-.00681	.00151	.00079	.00101	.00081	-.00335	.00000

ARC 07-747 QASXC B C H F W V NOM. RNVL SEAL.EL

(06050) (07 MAR 74 )

## REFERENCE DATA

SECF = 2.4210 SQ.FT. WWP = 32.3010 IN.  
 LREF = 14.2440 IN. YWP = .0000 IN.  
 BREF = 20.1004 IN. ZWP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = .000  
 ALLRON = .000 BCFAP = 16.300  
 SPDRK = 55.000 RUDDER = .000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 519/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CNR	CNEI	CNEO	CNET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-0.810	-0.00250	.01040	.00120	.01150	-.07780	-.07330	-.07500	-.07360	-.06330	252.70000
3.496	-1.101	.00010	.00050	.00070	.00320	-.07650	-.07230	-.07500	-.07320	-.06460	252.70000
3.496	.907	.00050	.00050	.00070	.00430	-.07480	-.07110	-.07380	-.07260	-.06650	252.70000
3.496	2.925	.00480	-.00360	-.00370	-.00750	-.07240	-.07110	-.07340	-.07480	-.07830	252.70000
3.496	4.941	.00690	-.01070	-.00690	-.01760	-.07100	-.06940	-.07350	-.07370	-.09130	252.70000
3.496	6.965	.00500	-.01800	-.01070	-.02470	-.07100	-.06540	-.07180	-.06960	-.10570	252.70000
3.496	8.983	.00460	-.02500	-.01460	-.03960	-.06850	-.06170	-.06930	-.06500	-.12570	252.70000
3.496	12.010	.00250	-.03570	-.00000	-.05570	-.06490	-.05030	-.06390	-.06150	-.16260	252.70000
3.496	15.050	.00200	-.04790	-.02630	-.07410	-.06070	-.03030	-.06130	-.05170	-.19390	252.70000
3.496	18.080	.00440	-.06230	-.03220	-.09450	-.05550	-.03440	-.05570	-.03850	-.23350	252.70000
3.496	21.120	.00160	-.07670	-.03870	-.11550	-.04820	-.02130	-.04860	-.02250	-.26170	252.70000
3.496	24.160	.00050	-.09360	-.04660	-.14020	-.03580	-.01630	-.03580	-.01680	-.32970	252.70000
3.496	27.060	.00170	-.11140	-.05440	-.16580	-.02820	-.01190	-.02750	-.01430	-.38350	252.70000
3.496	GRADIENT	.00150	-.00376	-.00144	-.00319	.00118	.00059	.00029	-.00010	-.00499	.00000



DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

PAGE 242

ARC 87-747 0453C B C N F M V NOM. RV/L

(06LOS1) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 26.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = .000 ELEVON = .000  
 AILERON = .000 BOFLAP = -11.700  
 SPDRK = 25.000 RUDDER = -25.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 440/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.498	-4.651	.21020	.01790	-.00600	.01190	-.00550	-.00040	-.10860	-.10750	-.00050	322.40000
2.498	-2.677	.24910	.01850	-.00570	.01280	-.00340	-.00240	-.13600	-.11400	.00000	322.40000
2.498	.301	.27460	.02120	-.00370	.01740	-.00220	.00600	-.14530	-.12550	.00070	322.40000
2.498	3.375	.30710	.02390	-.00190	.02200	.00140	.00810	-.15550	-.14210	.00170	322.40000
2.498	5.421	.32710	.02800	-.00130	.02670	.00480	.00990	-.15970	-.15270	-.00020	322.40000
2.498	7.092	.34910	.03210	-.00080	.03120	.00300	.01170	-.16650	-.16790	.00400	322.40000
GRADIENT	.01151	.00078	.00054	.00131	.00081	.00106	-.00534	-.00430	.00027	.00000	

RUN NO. 443/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.001	-4.630	.16150	.00750	-.00550	.00200	-.00760	-.00020	-.08240	-.08680	.00060	289.10000
3.001	-2.622	.19830	.00870	-.00430	.00440	-.00430	.00350	-.09910	-.10000	.00390	289.10000
3.001	.400	.24540	.01150	-.00250	.00900	-.00100	.00710	-.12850	-.11090	.00250	289.10000
3.001	3.321	.28480	.01580	-.00110	.01470	.00250	.00800	-.14650	-.12780	.00310	289.10000
3.001	5.611	.30510	.01880	-.00060	.01820	.00190	.00780	-.15410	-.14130	.00000	289.10000
3.001	7.323	.32520	.02180	-.00010	.02160	.00100	.00840	-.16270	-.15370	.00560	289.10000
GRADIENT	.01508	.00102	.00054	.00157	.00121	.00100	-.00803	-.00485	.00019	.00000	

RUN NO. 446/ 0 RV/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-4.836	.13150	.00170	-.00430	-.00260	-.00830	.00000	-.07110	-.06870	.00310	255.10000
3.496	-2.757	.16180	.00310	-.00320	-.00010	-.00570	.00270	-.08080	-.08400	.00350	255.10000
3.496	.348	.20770	.00720	-.00220	.00500	-.00310	.00550	-.10600	-.09930	.00350	255.10000
3.496	3.269	.26040	.01040	-.00110	.00930	-.00030	.00750	-.13460	-.11850	.00630	255.10000
3.496	5.726	.29190	.01330	-.00070	.01260	.00030	.00820	-.15190	-.13160	.00570	255.10000
3.496	7.462	.31300	.01600	-.00080	.01520	.00190	.00920	-.15900	-.14280	.00410	255.10000
GRADIENT	.01530	.00107	.00037	.00144	.00093	.00088	-.00769	-.00579	.00035	-.00000	



DATE 15 JUL 74

TABULATED SOURCE DATA - 0453C

PAGE 243

ARC 87-747 0453C B C M F W V NOM. RV/L

(04052) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. YMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000  
 AILRON = .000 SCFLAP = -11.700  
 SPDRK = 25.000 RUDDER = -25.000  
 ELEV-L = .000 ELEV-R = .000

RUN NO. 441/ 0 RV/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHEO	CHEI	CHEO	CHLL	CHUL	CHLR	CHLF	Q
2.498	-4.735	.17490	-.04110	-.02860	-.06970	-.00650	.00130	-.09450	.00150	-.09450	-.08550	-.01870	326.40000
2.498	-2.723	.20150	-.04360	-.02950	-.07260	-.00350	.00250	-.10810	.00250	-.10810	-.09440	-.01450	326.40000
2.498	.297	.23890	-.04410	-.02860	-.07270	-.00100	.00480	-.12220	.00480	-.12220	-.11280	-.01080	326.40000
2.498	3.328	.28470	-.04080	-.02820	-.06950	-.00020	.00830	-.13870	.00830	-.13870	-.13790	-.01380	326.40000
2.498	5.336	.30500	-.03740	-.02790	-.06520	.00070	.00820	-.14620	.00820	-.14620	-.14990	-.01400	326.40000
2.498	7.357	.31990	-.03440	-.02890	-.06230	.00180	.00670	-.15190	.00670	-.15190	-.15950	-.01600	326.40000
2.498	9.376	.32680	-.03130	-.02820	-.05950	.00310	.00330	-.15850	.00330	-.15850	-.16190	-.01720	326.40000
2.498	GRADIENT	.01350	.00003	.00006	.00012	.00077	.00084	-.00536	.00084	-.00536	-.00651	.00064	.00000

RUN NO. 444/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHEO	CHLL	CHUL	CHLR	CHLF	Q	
3.001	-4.714	.14420	-.03560	-.02260	-.05810	-.00630	.00300	-.07250	-.07490	-.07490	-.01580	289.50000
3.001	-2.670	.17120	-.03640	-.02240	-.05880	-.00290	.00350	-.08860	-.08200	-.08200	-.01200	289.50000
3.001	.396	.21340	-.03460	-.02260	-.05710	-.00190	.00540	-.11090	-.09890	-.09890	-.01190	289.50000
3.001	3.473	.26050	-.03190	-.02270	-.05470	.00050	.00720	-.12680	-.12700	-.12700	-.01320	289.50000
3.001	5.514	.28120	-.03000	-.02310	-.05310	.00000	.00630	-.13560	-.13920	-.13920	-.01050	289.50000
3.001	7.559	.28920	-.02800	-.02310	-.05110	.00040	.00540	-.13980	-.14370	-.14370	-.01130	289.50000
3.001	9.615	.30320	-.02610	-.02350	-.04950	.00130	.00720	-.14460	-.15000	-.15000	-.01210	289.50000
3.001	GRADIENT	.01419	.00049	.00002	.00045	.00064	.00053	-.00666	-.00636	-.00636	-.00024	-.00000

RUN NO. 447/ 0 RV/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHEO	CHLL	CHUL	CHLR	CHLF	Q	
3.496	-4.917	.10000	-.02920	-.01840	-.04750	-.00550	.00340	-.03070	-.03130	-.03130	-.00880	255.10000
3.496	-2.856	.14130	-.02970	-.01820	-.04790	-.00300	.00310	-.07170	-.06950	-.06950	-.00500	255.10000
3.496	.352	.18780	-.02920	-.01880	-.04810	-.00080	.00480	-.09540	-.08850	-.08850	-.00250	255.10000
3.496	3.519	.23850	-.02810	-.01920	-.04750	.00100	.00580	-.11650	-.11510	-.11510	-.00280	255.10000
3.496	5.625	.25530	-.02630	-.01950	-.04580	.00000	.00620	-.12560	-.12350	-.12350	-.00570	255.10000
3.496	7.741	.25730	-.02430	-.02020	-.04450	.00070	.00820	-.12580	-.12400	-.12400	-.00030	255.10000
3.496	9.850	.26260	-.02230	-.02020	-.04250	-.00070	.00820	-.12820	-.12680	-.12680	-.00720	255.10000
3.496	GRADIENT	.01616	.00014	.00011	.00002	.00053	.00032	-.00793	-.00738	-.00738	.00085	.00000

DATE 15 JUL 74

TABULATED SOURCE DATA - 0A53C

PAGE 244

ARC 87-747 0A53C B C M F W V NOM. RNVL

(BELG53) ( 07 MAR 74 )

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
 LREF = 14.2440 IN. YMRP = .0000 IN.  
 BREF = 28.1004 IN. ZMRP = 11.2500 IN.  
 SCALE = .0300 SCALE

ALPHA = 20.000 ELEVON = .000  
 AILRON = .000 BDFLAP = -11.700  
 SPDRK = 25.000 RUDDER = -25.000  
 ELEV-L = .000 ELEV-R = .000

## PARAMETRIC DATA

RUN NO. 442/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHEO	CHUL	CHLL	CHUR	CHLR	CHER	Q
2.498	-4.738	.15280	-.09650	-.05190	-.14830	-.00350	.00600	.00650	-.08480	-.05730	326.60000	
2.498	-2.727	.19870	-.09960	-.05250	-.15200	.00400	.00290	-.10620	-.09650	-.05290	326.60000	
2.498	.277	.19650	-.10110	-.05380	-.15490	.00290	.00290	-.10950	-.08610	-.05170	326.60000	
2.498	3.317	.16220	-.10160	-.05530	-.15690	.00090	.00090	-.11680	-.04650	-.05040	326.60000	
2.498	5.341	.14840	-.10140	-.05620	-.15760	.00030	.00030	-.10810	-.03930	-.05320	326.60000	
2.498	7.370	.14980	-.10110	-.05600	-.15710	.00080	.00080	-.10120	-.04470	-.05460	326.60000	
2.498	9.387	.17030	-.09900	-.05670	-.15570	.00480	.00010	-.09780	-.06750	-.05550	326.60000	
GRADIENT	.00037	-.00059	-.00043	-.00104	.00015	-.00060	-.000574	.00492	.00077	.00000		

RUN NO. 445/ 0 RNVL = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHEO	CHUL	CHLL	CHUR	CHLR	CHER	Q
3.001	-4.721	.09040	-.08050	-.04400	-.12440	.00490	.00510	-.03630	-.05190	-.04580	293.30000	
3.001	-2.678	.16450	-.08280	-.04460	-.12760	.00310	.00340	-.08750	-.07670	-.03890	293.30000	
3.001	.375	.14970	-.08450	-.04740	-.13090	.00240	.00220	-.09290	-.05790	-.03920	293.30000	
3.001	3.465	.11900	-.08520	-.04620	-.13130	.00290	.00070	-.09290	-.02820	-.02760	293.30000	
3.001	5.517	.12530	-.08530	-.04720	-.13250	.00140	.00060	-.08760	-.03950	-.04410	293.30000	
3.001	7.579	.14470	-.08590	-.04820	-.13400	.00040	.00060	-.08760	-.05680	-.04250	293.30000	
3.001	9.624	.15820	-.08570	-.04950	-.13520	.00020	.00040	-.08940	-.06960	-.04490	293.30000	
GRADIENT	.00174	-.00056	-.00029	-.00085	.00023	-.00051	-.00566	.00364	.00000	-.02652		

RUN NO. 448/ 0 RNVL = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHR	CHEI	CHEO	CHEI	CHEO	CHUL	CHLL	CHUR	CHLR	CHER	Q
3.496	-4.914	.05060	-.06840	-.03800	-.10640	.00420	.00380	-.02270	-.02840	-.03430	255.00000	
3.496	-2.809	.10650	-.07080	-.03880	-.10960	.00220	.00290	-.05050	-.05530	-.02930	255.00000	
3.496	.335	.10790	-.07280	-.03900	-.11180	.00250	.00240	-.07540	-.03260	-.02830	255.00000	
3.496	3.509	.09630	-.07350	-.04160	-.11510	.00180	.00050	-.07530	-.02230	-.03120	255.00000	
3.496	5.632	.11700	-.07360	-.04230	-.11610	.00010	.00120	-.07350	-.04710	-.03210	255.00000	
3.496	7.751	.12650	-.07360	-.04330	-.11690	.00000	.00150	-.07280	-.05230	-.03620	255.00000	
3.496	9.876	.13890	-.07210	-.04430	-.11650	.00000	.00260	-.07590	-.06150	-.03650	255.00000	
GRADIENT	.00434	-.00059	-.00039	-.00099	.00023	-.00037	-.00622	.00175	.00000	-.02652		

ARC 97-747 Q453C B C H F M V NOM. RN/L

08E054) ( 07 MAR 74 )

REFERENCE DATA

SREF = 2.4210 SQ.FT. XMRP = 32.3010 IN.  
LREF = 14.2440 IN. YMRP = .0000 IN.  
BREF = 28.1504 IN. ZMRP = 11.2500 IN.  
SCALE = .0300 SCALE

BETA = .000 ELEVON = -20.000  
AILRON = 15.000 BDFLAP = -11.700  
SPDRK = 55.000 RUDDER = .000  
ELEV-L = -5.000 ELEV-R = 35.000

PARAMETRIC DATA

RUN NO. 529/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
2.499	-.520	-.00190	.21550	.04910	.26470	-.11870	-.09950	-.11610	-.10010	.00580	320.90000
2.499	.175	-.00080	.20450	.04650	.25100	-.11710	-.09900	-.11580	-.09950	.00530	320.90000
2.499	1.188	.00020	.19400	.04100	.23500	-.11500	-.09750	-.11400	-.09850	.00630	320.90000
2.499	3.218	.00150	.16700	.03900	.20200	-.11100	-.09370	-.11030	-.09590	.00280	320.90000
2.499	5.247	.00240	.12140	.04070	.16200	-.10620	-.09200	-.10710	-.09350	.00030	320.90000
2.499	7.279	.00200	.09390	.04260	.13650	-.10250	-.08940	-.10220	-.09180	-.00690	320.90000
2.499	9.311	.00080	.07790	.04740	.11830	-.09940	-.08750	-.09880	-.08880	-.01060	320.90000
2.499	12.370	.00030	.08380	.02910	.11290	-.09500	-.08440	-.09460	-.08510	-.01360	320.90000
2.499	15.420	.00120	.05350	.02100	.07510	-.09250	-.08120	-.09200	-.08290	-.02420	320.90000
2.499	18.500	-.00120	.04180	.01590	.05770	-.08870	-.07400	-.08740	-.07410	-.04090	320.90000
2.499	21.520	.00090	.02100	.01470	.03580	-.08130	-.05220	-.08090	-.05350	-.05790	320.90000
2.499	24.580	.00310	.01140	.00990	.02140	-.06820	-.03270	-.07010	-.03380	-.07320	320.90000
2.499	27.450	.00120	.00800	.00390	.00990	-.05370	-.02190	-.05520	-.02170	-.08490	320.90000
GRADIENT		.00087	-.01386	-.00270	-.01658	.00205	.00160	.00162	.00114	-.00077	-.00000

RUN NO. 530/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CHR	CHEI	CHEO	CHET	CHUL	CHLL	CHUR	CHLR	CHBF	Q
3.000	-.561	.00200	.14590	.03460	.20050	-.09840	-.08410	-.09700	-.08750	.00390	291.20000
3.000	.134	.00250	.13890	.03420	.19300	-.09690	-.08370	-.09720	-.08590	.00000	291.20000
3.000	1.142	.00320	.12650	.03170	.17820	-.09360	-.08320	-.09530	-.08470	.00330	291.20000
3.000	3.158	.00370	.10840	.05090	.15930	-.09220	-.08130	-.09370	-.08350	.00360	291.20000
3.000	5.175	.00430	.08650	.04860	.13510	-.08960	-.07770	-.09110	-.08060	-.00250	291.20000
3.000	7.219	.00320	.06960	.04640	.11600	-.08680	-.07500	-.08820	-.07680	-.00520	291.20000
3.000	9.247	.00430	.05870	.04280	.10160	-.08320	-.07160	-.08520	-.07380	-.00580	291.20000
3.000	12.290	.00380	.05640	.03680	.09320	-.07900	-.06890	-.08070	-.07100	-.01210	291.20000
3.000	15.330	.00310	.04140	.03170	.07320	-.07370	-.06420	-.07560	-.06550	-.02010	291.20000
3.000	18.370	.00420	.01990	.02780	.04780	-.06830	-.05110	-.07010	-.05340	-.03280	291.20000
3.000	21.410	.00190	.01390	.02290	.03680	-.06300	-.03370	-.06360	-.03500	-.04190	291.20000
3.000	24.470	.00070	.00840	.01740	.02580	-.05230	-.02100	-.05170	-.02230	-.05490	291.20000
3.000	27.310	-.00070	.00300	.01200	.01500	-.03930	-.01890	-.03870	-.01880	-.07200	291.20000
GRADIENT		.00045	-.01013	-.00105	-.01118	.00167	.00076	.00098	.00101	.00032	.00000

DATE 15 JUL 74

TABULATED SOURCE DATA - Q153C

PAGE 246

ARC 87-747 Q153C B C N F M Y NON. RN/L

(06LOS4) (07 MAR 74)

## REFERENCE DATA

SREF = 2.4210 SQ.FT. XREF = 32.3010 IN.  
 LREF = 14.2440 IN. YREF = .0000 IN.  
 BREF = 26.1004 IN. ZREF = 11.2500 IN.  
 SCALE = .0300 SCALE

## PARAMETRIC DATA

BETA = .000 ELEVON = -20.000  
 AILEON = 15.000 BDFLAP = -11.700  
 SPDRK = 55.000 RUDPR = .900  
 ELEV-L = -5.000 ELEV-R = 35.000

RUN NO. 531/0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	QRE	QREI	QREO	QDET	CHIL	CHLL	CHUR	CHLR	CHBF	Q
3.496	-1.007	-.00030	.10930	.06350	.17490	-.07890	-.07280	-.07710	-.07430	.00030	253.70000
3.496	-1.100	.00290	.10580	.06190	.16770	-.07700	-.07160	-.07740	-.07410	.00630	253.70000
3.496	-.914	.00200	.09760	.05740	.15900	-.07510	-.07190	-.07570	-.07390	.00220	253.70000
3.496	2.929	.00700	.08150	.05180	.13330	-.07250	-.07040	-.07470	-.07510	.00290	253.70000
3.496	4.942	.00720	.06520	.04740	.11260	-.07180	-.06950	-.07420	-.07430	-.00160	253.70000
3.496	6.945	.00780	.05030	.04700	.09740	-.06970	-.06530	-.07270	-.07000	-.00380	253.70000
3.496	8.971	.00660	.04380	.04410	.08790	-.06860	-.06150	-.07070	-.06670	-.00440	253.70000
3.496	12.000	.00360	.03940	.03980	.07920	-.06570	-.05950	-.06820	-.06080	-.01010	253.70000
3.496	15.040	.00270	.02390	.03330	.05920	-.06190	-.05080	-.06280	-.05260	-.01550	253.70000
3.496	18.080	.00350	.01590	.03000	.04590	-.05570	-.03510	-.05720	-.03910	-.02340	253.70000
3.496	21.135	.00240	.01170	.02470	.03640	-.04950	-.02150	-.04990	-.02350	-.03670	253.70000
3.496	24.170	.00240	.00690	.01950	.02640	-.03630	-.01600	-.03750	-.01720	-.04660	253.70000
3.496	27.000	.00390	.00235	.01420	.01650	-.02840	-.01260	-.02990	-.01510	-.05830	253.70000
GRADIENT		.00128	-.00781	-.00308	-.01090	.00122	.00053	.00057	-.00009	-.00064	.00000